



This is a digital copy of a book that was preserved for generations on library shelves before it was carefully scanned by Google as part of a project to make the world's books discoverable online.

It has survived long enough for the copyright to expire and the book to enter the public domain. A public domain book is one that was never subject to copyright or whose legal copyright term has expired. Whether a book is in the public domain may vary country to country. Public domain books are our gateways to the past, representing a wealth of history, culture and knowledge that's often difficult to discover.

Marks, notations and other marginalia present in the original volume will appear in this file - a reminder of this book's long journey from the publisher to a library and finally to you.

Usage guidelines

Google is proud to partner with libraries to digitize public domain materials and make them widely accessible. Public domain books belong to the public and we are merely their custodians. Nevertheless, this work is expensive, so in order to keep providing this resource, we have taken steps to prevent abuse by commercial parties, including placing technical restrictions on automated querying.

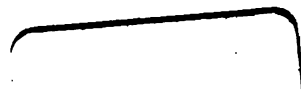
We also ask that you:

- + *Make non-commercial use of the files* We designed Google Book Search for use by individuals, and we request that you use these files for personal, non-commercial purposes.
- + *Refrain from automated querying* Do not send automated queries of any sort to Google's system: If you are conducting research on machine translation, optical character recognition or other areas where access to a large amount of text is helpful, please contact us. We encourage the use of public domain materials for these purposes and may be able to help.
- + *Maintain attribution* The Google "watermark" you see on each file is essential for informing people about this project and helping them find additional materials through Google Book Search. Please do not remove it.
- + *Keep it legal* Whatever your use, remember that you are responsible for ensuring that what you are doing is legal. Do not assume that just because we believe a book is in the public domain for users in the United States, that the work is also in the public domain for users in other countries. Whether a book is still in copyright varies from country to country, and we can't offer guidance on whether any specific use of any specific book is allowed. Please do not assume that a book's appearance in Google Book Search means it can be used in any manner anywhere in the world. Copyright infringement liability can be quite severe.

About Google Book Search

Google's mission is to organize the world's information and to make it universally accessible and useful. Google Book Search helps readers discover the world's books while helping authors and publishers reach new audiences. You can search through the full text of this book on the web at <http://books.google.com/>

C 419,054 DUPL



317.3 R

gun 3

Transportation . pt. 2.

U.S.
S

DEPARTMENT OF THE INTERIOR,

CENSUS OFFICE. *11th Census, 1890*

ROBERT P. PORTER,
Superintendent.

Appointed April 20, 1889; resigned July 31, 1893.

CARROLL D. WRIGHT,
Commissioner of Labor in charge.
Appointed October 5, 1893.

REPORT

ON

TRANSPORTATION BUSINESS

IN

THE UNITED STATES

AT THE

ELEVENTH CENSUS: 1890.

PART II.—TRANSPORTATION BY WATER.

HENRY C. ADAMS,
SPECIAL AGENT.



WASHINGTON, D. C.:
GOVERNMENT PRINTING OFFICE.
1894.

PROVIDENCE
ATHENÆUM.

TRANSPORTATION ON THE PACIFIC COAST (exclusive of Alaska)—Continued.		Page.
Localities of registration, equipment, and traffic		151-155
Plan of the tables		156-158
What the tables show		168-177
Landings and distances		178, 179
Equipment, occupation, and construction		180-192
Table 1.—Equipment of fleets		180
Table 2.—Occupation and valuation by classes		181, 182
Table 3.—Ownership by classes		183-185
Table 4.—Ownership by localities		186, 187
Table 5.—Construction by classes		188-190
Table 6.—Construction by localities		191, 192
Traffic operations		193-203
Table 7.—Traffic in general		193
Table 8.—Freight traffic by commodities		194
Table 9.—Interdistrict movement of freight		195-200
Table 10.—Interdistrict movement by mileage		201-203
Earnings and expenses		204-212
Table 11.—Financial account in general		204
Table 12.—Itemized expense account		205, 206
Table 13.—Employés and wages in detail		207-211
Table 14.—Employés and wages by coast totals		212
Table 15.—Fuel account		212
General operations by classes		213-221
Table 16.—Passenger and freight vessels		213, 214
Table 17.—Ferryboats		215
Table 18.—Fishing vessels		215
Table 19.—Harbor tugs		216
Table 20.—Pilot boats		216
Table 21.—Yachts and pleasure boats		216
Table 22.—No traffic report		217
Table 23.—Summary		218-221
Comparative statistics		222-238
Table 24.—Steamers and unrigged craft in 1880 and 1889		222
Table 25.—Steamers by classes in 1880 and 1889		222
Table 26.—Gross earnings of steamers in 1880 and 1889		222
Table 27.—Steamers' crews and wages in 1880 and 1889		222
Table 28.—Steamer traffic in 1880 and 1889		223
Table 29.—Fleets for the 10 years 1880-1889		223-226
Table 30.—Aggregates and averages of all vessels for the 10 years 1880-1889		227
Table 31.—Aggregates and averages of steamers for the 10 years 1880-1889		228
Table 32.—Aggregates and averages of sailing vessels for the 10 years 1880-1889		229
Table 33.—Aggregates and averages of unrigged craft for the 10 years 1880-1889		230
Table 34.—Fluctuations of all craft for the 10 years 1880-1889		230
Table 35.—Fluctuations of steamers for the 10 years 1880-1889		231
Table 36.—Fluctuations of sailing vessels for the 10 years 1880-1889		231
Table 37.—Fluctuations of unrigged craft for the 10 years 1880-1889		232
Table 38.—Shipbuilding of all vessels for the 10 years 1880-1889		232-235
Table 39.—Shipbuilding of steamers for the 10 years 1880-1889		236-238
Congressional appropriations		239-242
Table 40.—Congressional appropriations for the survey, improvement, and maintenance of rivers and harbors		239-242
TRANSPORTATION ON THE GREAT LAKES		243-373
Levels and watersheds		245, 246
Importance of situation		246
Early records		246, 247
Plan of the tables		247-250
Localities of registration, equipment, and traffic		250-252
What the tables show		252-268
Magazine statements		268, 269
Figures from Lloyds		269
Changes in equipment		270
The three canals		270-275
Congressional appropriations		275-283
Increase and improvement		283, 284
Reduction in freight rates		284-285
General results		287, 288
Lake landings and distances		288-291
Equipment, occupation, and construction		292-307
Table 1.—Equipment of fleets in general		292, 293
Table 2.—Equipment of fleets by classes		294-297
Table 3.—Percentages of tonnage and valuation		298-300

CONTENTS.

v

TRANSPORTATION ON THE GREAT LAKES—Continued.

Equipment, occupation, and construction—Continued.	Page.
Table 4.—Occupation by class groups.....	301-303
Table 5.—Construction by localities.....	304, 305
Table 6.—Construction by materials.....	305, 307
Traffic operations.....	308-339
Table 7.—Freight movement in general.....	308-311
Table 8.—Freight movement in general by principal ports.....	312-320
Table 9.—Freight movement in general summarized.....	321
Table 10.—Freight receipts by extended list of commodities.....	322-325
Table 11.—Freight shipments by extended list of commodities.....	326-329
Table 12.—Freight movement of combined receipts and shipments by extended list of commodities.....	330-333
Table 13.—Total freight movement by extended list of commodities.....	334, 335
Table 14.—Freight movement of unclassified commodities by their various units of measurement.....	336, 337
Table 15.—Freight movement of unclassified commodities.....	338
Table 16.—Freight movement by cargo tonnage.....	338
Table 17.—Passenger traffic.....	339
Table 18.—Freight values.....	339
Earnings and expense accounts.....	340-356
Table 19.—Financial account in general.....	340
Table 20.—Expense account in detail.....	341-347
Table 21.—Employés and wages by ports.....	348-352
Table 22.—Employés and wages by lake totals.....	353-355
Table 23.—Fuel account.....	356
Comparative statistics.....	357-371
Table 24.—Steamers by classes in 1880 and 1889.....	357
Table 25.—Expense accounts in 1880 and 1889.....	357
Table 26.—Crews and wages in 1880 and 1889.....	357
Table 27.—Traffic in 1880 and 1889.....	357
Table 28.—Fleets for the 10 years 1880-1889.....	358-361
Table 29.—Tonnage for the 10 years 1880-1889.....	362-364
Table 30.—Tonnage fluctuations for the 10 years 1880-1889.....	365
Table 31.—General shipbuilding for the 10 years 1880-1889.....	366-368
Table 32.—Shipbuilding of steamers for the 10 years 1880-1889.....	369-371
Congressional appropriations.....	372, 373
Table 33.—Appropriations by detailed localities.....	372, 373
TRANSPORTATION ON LAKE CHAMPLAIN.....	375-391
Plan of the tables.....	375-377
Localities.....	377
What the tables show.....	377-381
Equipment, occupation, and construction.....	382, 383
Table 1.—Equipment of fleet in general.....	382
Table 2.—Equipment of fleet by classes.....	382
Table 3.—Percentages of tonnage and valuation.....	382
Table 4.—Construction by localities.....	382
Table 5.—Construction by materials.....	383
Traffic operations.....	384
Table 6.—Freight movement in general.....	384
Table 7.—Freight movement by ports and commodities.....	384
Earnings and expense accounts.....	385-387
Table 8.—Financial account in general.....	385
Table 9.—Expense account in detail.....	385
Table 10.—Employés and wages.....	386, 387
Table 11.—Fuel account.....	387
Comparative statistics.....	388-391
Table 12.—Fleets for the 10 years 1880-1889.....	388
Table 13.—Vessel tonnages for the 10 years 1880-1889.....	389
Table 14.—Tonnage fluctuations for the 10 years 1880-1889.....	390
Table 15.—General shipbuilding for the 10 years 1880-1889.....	390
Table 16.—Shipbuilding of steamers for the 10 years 1880-1889.....	391
Congressional appropriations.....	391
Table 17.—Appropriations by localities.....	391
TRANSPORTATION ON THE RIVERS OF THE MISSISSIPPI VALLEY.....	393-465
Rivers.....	395, 396
Early navigation.....	396, 397
The Upper Mississippi.....	397, 398
Early days on the Missouri.....	398, 399
Plan of the tables.....	399-401
What the tables show.....	402-412
Registered tonnage.....	412, 413

TRANSPORTATION ON THE RIVERS OF THE MISSISSIPPI VALLEY—Continued.

	Page
The natural group	413, 414
The improved group	414, 415
The commercial group	415
Extent of the Mississippi valley	415, 416
Navigable and utilized waters	416
Congressional appropriations	416, 417
General remarks	418, 419
River landings and distances	419-424
Equipment	425-429
Table 1.—Steamers and unrigged craft	425
Table 2.—All vessels by classes	426-428
Table 3.—All steamers by tonnage groups for each district	429
Income and expenditures	430-432
Table 4.—Earnings and expenses of all steamers	430
Table 5.—Earnings and expenses of all steamers by classes	431, 432
Employés	433
Table 6.—Number of officers and men and total wages of crews for all vessels by classes	433
Traffic	434-440
Table 7.—All operating craft	434
Table 8.—Freight carried and towed	435
Table 9.—Freight by commodities carried on passenger and freight steamers	436
Table 10.—Freight by commodities carried on unrigged craft	437
Table 11.—Freight by commodities carried on ferryboats	438
Table 12.—Freight by commodities carried on all craft	439, 440
General account	441-447
Table 13.—Passenger and freight steamers	441
Table 14.—Towboats	442
Table 15.—Ferryboats	443
Table 16.—Harbor boats	444
Table 17.—Miscellaneous craft	445
Table 18.—No traffic report	445
Table 19.—Summary	446, 447
Comparative statistics	448-458
Table 20.—Number, tonnage, and value of all craft in 1880 and 1889 by localities	448
Table 21.—Number, tonnage, and value of steam vessels in 1880 and 1889 by occupations	448
Table 22.—Gross earnings of all craft in 1880 and 1889 by localities	448
Table 23.—Summary by localities	449
Table 24.—Tons of freight moved and number of passengers carried by all craft in 1880 and 1889 by localities	449
Table 25.—Tonnage of steamers and barges for the 10 years 1880-1889	450-452
Table 26.—Number, aggregate tonnage, and average vessel tonnage of steamers for the 10 years 1880-1889	453
Table 27.—Average annual number of steamers and average annual tonnage for the 10 years 1880-1889	454
Table 28.—Number and tonnage of all craft for the 10 years 1880-1889	455-458
Congressional appropriations	459-463
Table 29.—Itemized appropriations by localities	459-462
Table 30.—Summary	463
Navigable waters	464, 465
Table 31.—Number of navigable miles and number of miles operated	464, 465
TRANSPORTATION ON CANALS AND CANALIZED RIVERS	467-488
Plan of the tables	469
What the tables show	469-473
Table 1.—Construction	474-477
Table 2.—Floating equipment	478
Table 3.—Traffic	479
Table 4.—Income and expenditures	480
Table 5.—Mileage operated in 1880 and 1889	481, 482
Table 6.—Length and cost of abandoned canals	482
Table 7.—Freight traffic in 1880 and 1889	483-485
Table 8.—Income and expenditures in 1880 and 1889	486-488
TRANSPORTATION BY EXPRESS COMPANIES	489-532
Existing and merged companies	491
Plan of the tables	492
Groupings	492-494
What the tables show	494-498
Table 1.—Mileage operated during the 10 years 1880-1889	499-507
Table 2.—Mileage operated	508-521
Table 3.—Equipment and fixtures	522-525
Table 4.—Employés	526, 527
Table 5.—Expenditures	528-530
Table 6.—Business done	531, 532

MAPS.

	Page.
Navigable depths of rivers and principal transportation routes on the seacoasts and Great Lakes	1
The six traffic districts of the Pacific coast	151

LETTER OF TRANSMITTAL.

DEPARTMENT OF THE INTERIOR,
CENSUS OFFICE,
WASHINGTON, D. C., October 24, 1894.

SIR:

I have the honor to transmit herewith the text and statistical tables of Part II of the Report on Transportation for the Eleventh Census, pertaining to waterways, together with the statistics relating to express companies, bound for convenience in the same volume.

The subdivisions of the volume are as follows:

- Atlantic coast and Gulf of Mexico.
- Pacific coast.
- Great Lakes.
- Rivers of the Mississippi valley.
- Canals and canalized rivers.
- Express companies.

The work of tabulation has been done by Mr. Thomas J. Vivian, under the direction of Mr. Henry C. Adams (statistician of the Interstate Commerce Commission), special agent of the Census in charge of transportation.

I am, very respectfully, your obedient servant,

CARROLL D. WRIGHT,
Commissioner of Labor in charge.

Hon. HOKE SMITH,
Secretary of the Interior.

INTRODUCTION.

The statistics of the accompanying report on transportation are grouped under the following divisions:

1. Atlantic coast and Gulf of Mexico.
2. Pacific coast.
3. Great Lakes.
4. Rivers of the Mississippi valley.
5. Canals and canalized rivers.

Following these divisions of water transportation, the statistics of express companies for both land and water are given.

The totals of the five divisions represent the returns for the United States as made to the Census Office. The year of report is that ending December 31, 1889, that period having been selected in accord with the provision for using the fiscal year of reporting returns ending nearest June 1, 1890, because operations on rivers, lakes, and canals are bounded to such an extent by the opening and closing of navigation, and because most of the large shipping concerns on the coasts follow the calendar rather than the fiscal year in their accounts.

Tabulations are compiled as totals for the United States on the following subjects:

Equipment—number, gross tonnage, and commercial value of all craft.

Traffic operations—amount of freight moved and number of passengers carried by all craft.

Financial accounts—gross earnings, expenses, and net earnings of all craft.

Comparative statistics—corresponding data for the Tenth and the Eleventh Censuses.

The totals for the five divisions and for the United States are given in Tables 1 to 8, following. Table 9 contains by divisions the totals of the sums appropriated by Congress for the maintenance and improvement of waterways.

The report made by the Tenth Census having been confined to the operations of steamers, the statistics that can be used for comparison between the Tenth and the Eleventh Censuses are limited.

By the term "all craft" is meant all steamers, sailing vessels, and unrigged craft of over 5 tons burden, whether registered in the customs districts or owned without registration, the latter being mostly unrigged craft.

By the term "unrigged craft" is meant all vessels having no motive power of their own.

The report for the Pacific coast does not include returns for Alaska.

The report for the Great Lakes includes the returns from Lake Champlain for 1889. In the comparative tables Lake Champlain is not included, as the Tenth Census did not collect the data in question.

Returns for the Red River of the North, for convenience, are included in the report for the rivers of the Mississippi valley.

TABLE 1.—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER 5 TONS BURDEN, REGISTERED OR OWNED IN THE UNITED STATES DECEMBER 31, 1889.

DIVISIONS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Num- ber of vessels.	Gross tonnage.	Commercial valuation.	Num- ber of vessels.	Gross tonnage.	Commercial valuation.	Num- ber of vessels.	Gross tonnage.	Commercial valuation.	Num- ber of vessels.	Gross tonnage.	Commercial valuation.
The United States.	32,059	8,603,489	\$220,774,250	6,205	1,833,062	\$141,266,570	8,917	1,797,071	\$57,275,727	16,937	4,973,356	\$22,231,953
Atlantic coast and Gulf of Mexico.	13,406	2,862,630	127,676,487	2,933	837,162	73,554,540	7,108	1,401,985	46,284,507	3,425	623,483	7,837,440
Pacific coast.	1,842	441,939	23,067,370	531	170,503	15,526,455	822	208,080	6,715,570	489	63,356	825,345
Great Lakes.	2,784	926,355	48,941,474	1,489	599,949	41,193,324	987	187,006	4,275,650	308	139,400	3,472,500
Rivers of the Missis- sippi valley.	7,453	3,393,380	15,335,005	1,114	210,772	10,539,251				6,339	3,182,608	4,795,754
Canals and canalized rivers.	6,514	979,185	5,753,914	138	14,676	453,000				6,376	964,509	5,300,914

STATISTICS OF TRANSPORTATION.

TABLE 2.—NUMBER, AVERAGE GROSS TONNAGE, AND AVERAGE COMMERCIAL VALUATION PER VESSEL AND PER GROSS TON OF ALL CRAFT ON DECEMBER 31, 1889.

DIVISIONS.	TOTAL OF ALL CRAFT.				STEAMERS.				SAILING VESSELS.				UNRIGGED CRAFT.			
	Number of vessels.	Average gross tonnage per vessel.	Average commercial valuation per vessel.	Average commercial valuation per ton.	Number of vessels.	Average gross tonnage per vessel.	Average commercial valuation per vessel.	Average commercial valuation per ton.	Number of vessels.	Average gross tonnage per vessel.	Average commercial valuation per vessel.	Average commercial valuation per ton.	Number of vessels.	Average gross tonnage per vessel.	Average commercial valuation per vessel.	Average commercial valuation per ton.
The United States.....	32,059	268	\$6,886	\$25.66	6,205	295	\$22,707	\$77.07	8,917	202	\$6,423	\$31.87	16,937	204	\$1,313	\$4.47
Atlantic coast and Gulf of Mexico.	13,466	213	9,481	44.60	2,933	285	25,078	87.86	7,108	197	6,512	33.01	3,425	182	2,268	12.57
Pacific coast.....	1,842	240	12,523	52.20	531	321	29,240	91.06	822	253	8,170	32.27	489	130	1,688	13.03
Great Lakes.....	2,784	333	17,580	52.83	1,489	403	27,665	68.66	987	189	4,332	22.86	308	453	11,274	24.91
Rivers of Mississippi valley.	7,453	455	2,058	4.52	1,114	189	9,461	50.00					6,339	502	757	1.51
Canals and canalized rivers.	6,514	150	883	5.88	138	106	3,283	30.87					6,376	151	831	5.50

TABLE 3.—TONS OF FREIGHT MOVED AND NUMBER OF PASSENGERS CARRIED BY THE OPERATING STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT, EXCLUSIVE OF RAILROAD FERRIES, DURING THE YEAR ENDING DECEMBER 31, 1889.

DIVISIONS.	FREIGHT IN TONS.				Passengers.
	Total.	Steamers.	Sailing vessels.	Unrigged-craft.	
The United States.....	182,848,402				109,837,143
Atlantic coast and Gulf of Mexico.....	80,695,665	28,791,438	39,801,533	12,102,694	a152,742,927
Pacific coast.....	8,818,363	65,741,940	2,761,826	314,567	c4,019,329
Great Lakes.....	d53,424,432				2,235,963
Rivers of the Mississippi valley.....	29,405,046	10,345,504		19,059,542	10,858,884
Canals and canalized rivers.....	10,504,896			10,514,896	

a Seventeen million four hundred and eighty-two thousand five hundred and thirty-one ferry passengers carried on railroad tickets not included in above figures.

b Two million four hundred and thirty-one thousand five hundred and sixty-four tons of railroad ferry freight not included in above figures.

c Eleven million six hundred and fifty-two thousand seven hundred and sixty-four ferry passengers carried on railroad tickets not included in above figures.

d No segregated report made of freight movement by classes of vessels.

TABLE 4.—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL OPERATING CRAFT DURING THE YEAR ENDING DECEMBER 31, 1889.

DIVISIONS.	Gross earnings.	Expenses.	Net earnings.
The United States.....	\$160,838,776	\$130,257,970	\$36,580,806
Atlantic coast and Gulf of Mexico.....	90,147,632	70,226,792	19,920,840
Pacific coast.....	20,628,316	17,274,809	3,353,507
Great Lakes.....	35,636,163	28,033,651	7,602,512
Rivers of the Mississippi valley.....	16,337,533	12,600,342	3,737,191
Canals and canalized rivers.....	4,089,132	2,122,376	1,966,756

TABLE 5.—TOTAL NUMBER OF COMMON SEAMEN EMPLOYED AND THE AVERAGE MONTHLY WAGES PAID TO EACH, AND NUMBER OF EMPLOYEES MAKING ORDINARY CREWS AND THE TOTAL WAGES PAID THEM DURING THE YEAR ENDING DECEMBER 31, 1889.

DIVISIONS.	Common seamen employed.	Average wages paid per month to common seamen.	Number making ordinary crews.	Total wages paid during year to all employés.
The United States.....	25,848	\$26.43	114,730	\$41,729,842
Atlantic coast and Gulf of Mexico.....	17,418	21.38	63,625	22,123,090
Pacific coast.....	4,302	38.36	12,181	6,127,451
Great Lakes.....	4,128	35.30	22,934	8,140,430
Rivers of the Mississippi valley.....			15,096	5,338,862
Canals and canalized rivers (a).....				

a Not reported.

INTRODUCTION.

xiii

TABLE 6.—COMPARATIVE STATISTICS—NUMBER, GROSS TONNAGE, AND COMMERCIAL VALUATION OF ALL STEAMERS IN 1880 AND 1889.

DIVISIONS.	Years.	Number of steamers.	Gross tonnage of steamers.	Commercial valuation of steamers.
The United States.....	1880	4,659	1,185,074	\$77,800,525
	1889	6,045	1,814,250	140,489,070
Atlantic coast and Gulf of Mexico.....	1880	2,195	613,986	45,394,700
	1889	2,933	837,162	73,554,540
Pacific coast.....	1880	319	97,005	6,477,500
	1889	531	170,503	15,526,455
Great Lakes (exclusive of Lake Champlain).....	1880	947	222,290	13,918,925
	1889	1,467	595,813	40,808,824
Rivers of the Mississippi valley.....	1880	1,198	251,793	12,039,400
	1889	1,114	210,772	10,539,251

TABLE 7.—COMPARATIVE STATISTICS—GROSS EARNINGS OF ALL STEAMERS OPERATING IN 1880 AND 1889, TOGETHER WITH THE AMOUNT PAID IN WAGES DURING THOSE YEARS.

DIVISIONS.	Years.	Gross earnings of steamers.	Paid in wages on steamers.
The United States.....	1880	\$83,222,936	\$25,191,515
	1889	102,527,042	26,056,988
Atlantic coast and Gulf of Mexico.....	1880	44,430,765	12,964,874
	1889	48,003,020	11,239,169
Pacific coast.....	1880	6,362,770	1,953,451
	1889	13,237,222	3,682,062
Great Lakes (exclusive of Lake Champlain).....	1880	12,136,228	3,293,964
	1889	24,949,267	5,796,895
Rivers of the Mississippi valley.....	1880	20,293,173	6,979,226
	1889	16,337,533	5,338,862

TABLE 8.—COMPARATIVE STATISTICS—NUMBER OF EMPLOYEES CONSTITUTING THE ORDINARY CREWS OF ALL STEAMERS OPERATING IN 1880 AND 1889, WITH WAGES PAID, AVERAGES OF ANNUAL PAY, AND DECREASE OR INCREASE PER EMPLOYÉ.

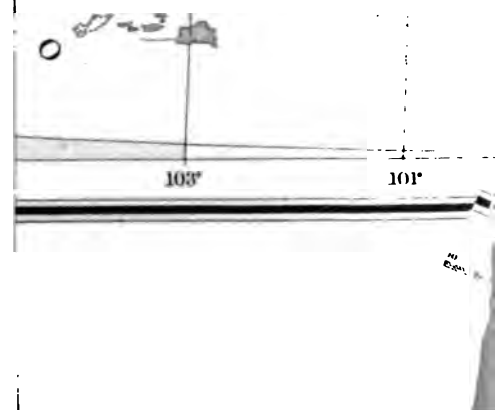
DIVISIONS.	Years.	Number making ordinary crews of steamers.	Total wages paid during year on steamers.	Average annual wages paid per steamer employé.	Average annual increase in wages per steamer employé.	Average annual decrease in wages per steamer employé.
The United States.....	1880	60,677	\$25,191,515	\$415.17		
	1889	63,738	26,056,988	408.81		\$6.36
Atlantic coast and Gulf of Mexico.....	1880	24,910	12,964,874	520.47		
	1889	25,653	11,239,169	438.12		82.35
Pacific coast.....	1880	3,008	1,953,451	649.42		
	1889	6,818	3,682,062	540.05		109.37
Great Lakes (exclusive of Lake Champlain).....	1880	9,143	3,293,964	360.27		
	1889	15,271	5,796,895	379.60	\$19.33	
Rivers of the Mississippi valley.....	1880	23,616	6,979,226	295.53		
	1889	15,196	5,338,862	333.76	38.23	

TABLE 9.—SUMS APPROPRIATED BY CONGRESS FOR SURVEY, IMPROVEMENT, AND MAINTENANCE OF WATERWAYS AND HARBORS BY PERIODS FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE.

DIVISIONS.	Date of earliest appropriations.	Total appropriations up to date.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September 19, 1890.
The United States.....		\$208,411,274	\$92,406,652	\$91,434,327	\$24,570,895
Atlantic coast and Gulf of Mexico.....	1821	79,582,684	37,483,428	33,293,406	8,808,850
Pacific coast.....	1852	9,934,800	2,315,600	5,527,200	2,122,600
Great Lakes.....	1823	42,036,327	24,409,917	13,323,165	4,303,245
Rivers of the Mississippi valley.....	1819	76,827,463	28,200,707	39,290,556	9,326,200
Canals and canalized rivers (a).....					

a The appropriations for canals and canalized rivers are included in the reports for those localities (coasts, lakes, or rivers) in which they are situated.





TRANSPORTATION ON THE ATLANTIC COAST AND GULF OF MEXICO.

TRANSPORTATION ON THE ATLANTIC COAST AND GULF OF MEXICO.

BY THOMAS J. VIVIAN.

The statistics given in the present report are those concerning transportation on water by craft owned and registered in the seaports of the Atlantic coast and Gulf of Mexico and the ports situated on the navigable rivers emptying into these bodies of water, except the Mississippi river, whose traffic, with that of its affluents, is reported separately, the only portion of the Mississippi river traffic embraced in this report being the ocean trade to and from New Orleans.

For the presentation of these statistics 39 tables have been prepared, their respective numbers and titles being as follows:

PLAN OF THE TABLES.

Equipment, occupation, and construction:

- Table 1.—Equipment of fleets in general.
- Table 2.—Equipment of fleets by classified tonnage.
- Table 3.—Equipment of fleets by classified occupations.
- Table 4.—Ownership by classes.
- Table 5.—Ownership by localities.
- Table 6.—Construction by classes.
- Table 7.—Construction by localities.

Traffic operations:

- Table 8.—Traffic in general.
- Table 9.—Freight traffic by commodities.
- Table 10.—Interdistrict movement, freight, and mileage.

Earnings and expenses:

- Table 11.—Financial account in general.
- Table 12.—Running and shore expenses.
- Table 13.—Employés and wages by coast totals.
- Table 14.—Employés and wages in detail.

General operations by classes:

- Table 15.—Passenger and freight vessels.
- Table 16.—Ferryboats.
- Table 17.—Towing boats.
- Table 18.—Yachts.
- Table 19.—Harbor craft.
- Table 20.—Miscellaneous craft.
- Table 21.—No traffic report.
- Table 22.—Summary.

Fuel account:

- Table 23.—Amount and value of coal and wood used.

Comparative statistics:

- Table 24.—Steamers in 1880 and 1889.
- Table 25.—Gross earnings and wages of steamers in 1880 and 1889.
- Table 26.—Steamers' crews and wages in 1880 and 1889.
- Table 27.—Steamer traffic in 1880 and 1889.
- Table 28.—Fleets for the 10 years 1880-1889.
- Table 29.—Aggregates and averages for the 10 years 1880-1889 (all vessels).
- Table 30.—Aggregates and averages for the 10 years 1880-1889 (steamers).
- Table 31.—Aggregates and averages for the 10 years 1880-1889 (sailing vessels).
- Table 32.—Aggregates and averages for the 10 years 1880-1889 (unrigged craft).
- Table 33.—Tonnage fluctuations for the 10 years 1880-1889 (all vessels).
- Table 34.—Tonnage fluctuations for the 10 years 1880-1889 (steamers).
- Table 35.—Tonnage fluctuations for the 10 years 1880-1889 (sailing vessels).
- Table 36.—Tonnage fluctuations for the 10 years 1880-1889 (unrigged craft).
- Table 37.—Shipbuilding for the 10 years 1880-1889 (all vessels).
- Table 38.—Shipbuilding for the 10 years 1880-1889 (steamers).

Congressional appropriations:

- Table 39.—Appropriations for the Atlantic coast and Gulf of Mexico, by localities.

LOCALITIES OF REGISTRATION, EQUIPMENT, AND TRAFFIC.

For convenience the ports whose fleets are reported have been grouped, numbered, and named according to the plan on the following page.

STATISTICS OF TRANSPORTATION.

NAMES, PORTS, AND BOUNDARY LINES OF THE EQUIPMENT AND TRAFFIC DISTRICTS IN WHICH THE FLOATING CRAFT OF THE ATLANTIC COAST AND GULF OF MEXICO ARE REGISTERED.

Number of district.	Name of district.	Ports.	Boundary line.
1	Portland.....	Eastport, Lubeck, Machias, Calais, Franklin, Castine, Buckport, Sedgwick, Mount Desert Ferry, Deer Isle, Southwest Harbor, Sullivan, Ellsworth, Belfast, Lincolnville, Searsport, Bangor, St. George, Thomaston, Rockland, North Haven, Camden, Rockport, Boothbay, Wiscasset, Waldoboro, Damariscotta, Bath, Portland, York, Kennebunk, and Saco, Me. Portsmouth, N. H.	Maine and New Hampshire.
2	Boston.....	Salem, Marblehead, Newburyport, Gloucester, Boston, Plymouth, Duxbury, Scituate, Falmouth, Provincetown, Dennis, West Dennis, South Dennis, Chatham, Wellfleet, Barnstable, Hyannis, Edgartown, Nantucket, Fall River, and New Bedford, Mass. Bristol, Newport, and Providence, R. I.	Massachusetts and Rhode Island.
3	New York.....	New London, Stonington, New Haven, Bridgeport, and Hartford, Conn. Patchogue, New York, Cold Spring Harbor, Albany, Port Jefferson, Greenport, and Sag Harbor, N. Y. Newark and Perth Amboy, N. J.	Rhode Island line to and including Cape May, N. J.
4	Philadelphia.....	Tuckertown, Somers Point, Bridgeton, Camden, Burlington, and Trenton, N. J. Philadelphia, Pa. Wilmington, Milford, Seaford, and New Castle, Del. Chincoteague, Va.	Cape May, N. J., to Cape Charles, Va.
5	Baltimore.....	Baltimore, Crisfield, and Annapolis, Md. Georgetown, D. C. Onancock, Cape Charles, and Alexandria, Va.	Including Cape Charles, Va., to and including Potomac river.
6	Norfolk.....	Norfolk, Newport News, Petersburg, Richmond, and Tappahannock, Va. Edenton, Newbern, Beaufort, and Wilmington, N. C.	Potomac river to route line of North Carolina.
7	Savannah.....	Georgetown, Charleston, and Beaufort, S. C. Savannah, Brunswick, and St. Mary, Ga. Fernandina, Jacksonville, St. Augustine, and Key West, Fla.	South Carolina to and including Key West, Fla.
8	Mobile.....	Tampa, Cedar Keys, Apalachicola, and Pensacola, Fla. Mobile, Ala. Shildaboro, Miss.	Key West, Fla., to Louisiana.
9	New Orleans.....	New Orleans, Brashear, and Lake Charles, La.	Louisiana.
10	Galveston.....	Galveston, Corpus Christi, Brownsville, and Eagle Pass, Tex.	Texas.
11	Pacific coast.....	All seaports on the United States Pacific coast.	
12	Foreign.....	The ports of call and trading points in all foreign countries.	

To the first 10 districts the statistics of number, tonnage, valuation, construction, ownership, occupation, employes, wages, earnings, expenses, and passengers and freight carried have been assigned, while the interdistrict statistics of commodities and mileage have been assigned to all 12 districts.

EQUIPMENT AND OCCUPATION.

The 7 tables, 1 to 7, inclusive, present the main facts concerning the number, carrying capacity, valuation, and occupation or pursuit of the entire floating equipment of the Atlantic coast and Gulf of Mexico, with the exception of craft engaged as fishing vessels. The minimum tonnage limit of the steamers, sailing vessels, and unrigged craft for registry is 5 tons. The unregistered part of the fleet is unrigged, whose registration was not compulsory after 1882, except for those barges engaged in the transportation of bonded goods.

The steamers are classed as passenger and freight, towing, ferry, yachts, harbor, miscellaneous, and no traffic report. The sailing vessels are classed as freight, harbor, yachts, miscellaneous, and no traffic report. The unrigged embrace all craft engaged in the transportation of freight and having no motive power of their own. The passenger and freight vessels, both steam and sail, are those engaged exclusively in either passenger or freight traffic or in combined passenger and freight traffic, but does not include ferryboats, which are treated as a separate class. The towing steamers are those furnishing motive power for floats and barges, or for the moving of vessels without and within the harbor. The yachts include all pleasure craft above the registration limit. The harbor craft placed among the steamers include such floating channel property as dredges, wreckers, iceboats, pile-drivers, and lighters used in the loading or unloading of large vessels, already reported as freighters. The harbor craft placed among the sailing vessels include water boats, pilot boats, and lighters engaged in the loading or unloading of large vessels, already reported as freighters. The miscellaneous, both sail and steam, are such craft as were engaged in more than one class of occupation during the year. The craft grouped under the head of "No traffic report" are the steamers and sailing vessels which were not operated during the year, or which failed to make the required report of operations. In Table 1 the number, tonnage, and valuation of all craft are accredited to each of the various ports comprising the districts; while in Table 2 the steamers and sailing vessels

of the fleet are classified according to tonnage, the classifications ranging from "5 to 50 tons" up to "2,500 tons and over". In Table 3 the entire fleet is classified according to occupation and allotted to the various districts. The figures given in this table and Table 1 show that the total fleet, with the exception of craft employed as fishing vessels, of the Atlantic coast and Gulf of Mexico numbered 13,466 craft, having a tonnage of 2,862,630 tons, and a valuation of \$127,676,487. The tonnage figures employed represent gross tonnage, and the valuation is the estimated commercial valuation reported in the schedules as having been set by the owners of the vessels on the last day of 1889.

TABLE A.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND VALUATION OF THE PRINCIPAL CLASSES OF VESSELS REGISTERED AND OWNED ON THE ATLANTIC COAST AND GULF OF MEXICO IN 1889.

CLASSES OF VESSELS	Number	Tonnage	Valuation
Total	13,466	2,862,630	\$127,676,487
Steamers	2,933	837,162	73,554,540
Passenger and freight	810	487,939	36,989,280
Towing	1,095	61,359	10,203,330
Ferry	214	98,174	7,907,700
Yachts	170	11,328	3,520,610
Harbor	94	13,843	1,446,150
Miscellaneous	153	69,127	5,451,570
No traffic report	397	95,392	8,035,900
Sailing vessels	7,108	1,401,985	46,284,507
Freight	5,229	1,260,362	38,777,627
Harbor	368	15,849	1,151,540
Yachts	628	14,428	2,681,455
Miscellaneous	52	2,553	75,360
No traffic report	831	108,793	3,598,525
Unrigged craft	3,425	623,483	7,837,440

Table 3 contains material from which have been derived the average tonnage, average commercial value per craft, and average value per ton of the entire fleet, and in the following summary these averages will be found for each class:

TABLE B.—SUMMARY SHOWING THE NUMBER, AVERAGE TONNAGE, AVERAGE VALUE PER VESSEL, AND AVERAGE VALUE PER TON OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE ATLANTIC COAST AND GULF OF MEXICO IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Average tonnage.	Average commercial value per craft.	Average value per ton.
Total	13,466	213	\$9,481	\$44.60
Steamers	2,933	285	25,078	87.86
Passenger and freight	810	602	45,666	75.81
Towing	1,095	56	9,318	166.20
Ferry	214	459	36,952	80.55
Yachts	170	67	20,709	310.79
Harbor	94	147	15,385	104.47
Miscellaneous	153	452	35,631	78.86
No traffic report	397	240	20,242	84.24
Sailing vessels	7,108	197	6,512	33.01
Freight	5,229	241	7,416	30.77
Harbor	368	43	3,129	72.06
Yachts	628	23	4,270	185.85
Miscellaneous	52	49	1,449	29.52
No traffic report	831	131	4,330	33.08
Unrigged craft	3,425	182	2,288	12.57

It will be seen that the average value per ton is nearly in due inverse ratio to the average tonnage. Thus the towing steamers and steam yachts have the lowest average tonnage and the highest value per ton, while the passenger and freight steamers have the highest average tonnage and the lowest average value per ton. The same ratio will be found in the sailing vessels, the yachts having the lowest average tonnage and the highest average

STATISTICS OF TRANSPORTATION.

value per ton and the freight vessels having the highest tonnage and the lowest average value per ton. The rule does not apply, however, to the relative averages of the steamers and sailing vessels engaged in the same calling. In the case of the passenger and freight steamers and freight sailing vessels, for instance, the steamers have the higher average tonnage and the higher average value per ton, the larger value of the steamers being due to the presence of machinery and more expensive material of construction.

OWNERSHIP AND CONSTRUCTION.

Tables 4 to 7, inclusive, deal with the facts of the ownership and construction of the various classes of steamers and sailing vessels, no classification of either ownership or construction having been made for the unriggered. The statistics of ownership are given for only 9,151 steamers and sailing vessels.

Table 4, entitled "Ownership by classes", and Table 5, entitled "Ownership by localities", are respectively summarized in the two parts of the subjoined statement:

TABLE C.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND VALUE FOR EACH CLASS OF VESSELS AND FOR EACH DISTRICT OF THE ATLANTIC COAST AND GULF OF MEXICO, GROUPED UNDER THE HEADS OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

CLASSES OF VESSELS AND DISTRICTS.	Total number of vessels.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
		Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	9,151	7,904	1,404,883	215	75,827	1,032	580,613	\$60,509,762	\$5,250,750	\$43,768,790
Steamers	2,626	1,548	150,974	148	46,488	930	555,115	18,905,530	4,255,700	43,284,910
Passenger and freight	810	324	62,510	82	28,143	404	387,286	5,371,470	3,284,000	28,333,810
Towing	1,095	796	35,818	38	2,795	261	22,746	6,154,300	384,000	3,665,030
Ferry	214	63	26,945	13	3,806	138	67,423	2,315,970	375,000	5,216,730
Yachts	170	160	10,840	1	6	9	482	3,390,920	1,200	128,490
Harbor	94	51	4,650	8	1,121	35	8,072	458,050	117,000	872,500
Miscellaneous	153	82	9,239	1	214	70	59,674	730,220	45,000	4,676,350
No traffic report	90	72	6,972	5	403	13	9,432	486,000	49,500	392,000
Sailing vessels	6,525	6,356	1,247,909	67	29,339	102	25,498	41,604,232	995,050	483,880
Freight	5,220	5,124	1,209,053	48	28,181	57	23,128	37,423,227	937,350	417,050
Harbor	368	332	14,176	15	884	21	789	1,072,790	47,300	31,450
Yachts	628	626	14,406	1	10	1	12	2,678,955	500	2,000
Miscellaneous	52	28	941	1	43	23	1,569	37,980	4,000	33,380
No traffic report	248	246	9,333	2	221			391,280	5,900	

BY DISTRICTS.										
Total	9,151	7,904	1,404,883	215	75,827	1,032	580,613	60,509,762	5,250,750	43,768,790
Steamers	2,626	1,548	150,974	148	46,488	930	555,115	18,905,530	4,255,700	43,284,910
Portland	122	55	3,006	19	1,815	48	20,665	336,250	210,500	1,777,500
Boston	233	106	9,723	3	75	124	90,572	1,213,150	13,000	7,041,880
New York	1,265	757	90,349	77	32,897	431	272,657	11,128,730	3,228,500	22,729,930
Philadelphia	302	161	12,641	11	1,319	130	67,031	1,665,350	185,200	5,635,100
Baltimore	215	126	12,577	15	5,935	74	51,557	2,306,800	250,000	2,537,750
Norfolk	132	90	5,597	7	1,535	35	4,856	497,800	104,500	386,800
Savannah	163	119	9,592	5	1,953	39	20,663	802,400	67,500	1,045,250
Mobile	106	81	8,489	6	472	19	1,210	618,250	53,500	129,200
New Orleans	53	31	3,614	4	410	18	24,872	209,800	58,000	1,287,000
Galveston	35	22	1,386	1	77	12	1,032	127,000	15,000	114,500
Sailing vessels	6,525	6,356	1,247,909	67	29,339	102	25,498	41,604,232	995,050	483,880
Portland	1,591	1,565	413,312	22	18,718	4	571	12,278,167	687,600	17,900
Boston	887	856	274,785			29	17,667	8,947,405		280,200
New York	1,893	1,823	355,060	20	9,249	41	3,481	12,946,835	245,950	90,730
Philadelphia	659	641	139,809	3	117	15	2,473	4,815,730	8,200	40,500
Baltimore	486	484	38,578	1	215	1	42	1,382,960	6,000	3,000
Norfolk	211	208	7,037	1	64	2	409	297,260	1,000	12,500
Savannah	257	256	7,821	1	10			391,800	500	
Mobile	200	185	5,092	8	867	7	805	239,310	43,300	33,750
New Orleans	187	186	3,752	1	55			109,460	900	
Galveston	154	150	2,063	1	44	3	50	135,305	1,600	5,300

In the preceding table it is seen that the preponderance of interest lies with the individual owner. The steamers owned by corporations numbered 930, with a tonnage of 555,115 tons and a valuation of \$43,284,910, while the steamers owned by individuals numbered 1,548, with a tonnage of 156,974 tons and a valuation of \$18,905,530. The sailing vessels owned by corporations numbered 102, with a tonnage of 25,498 tons and a valuation of \$483,880, while the sailing vessels owned by individuals numbered 6,356, with a tonnage of 1,247,909 tons and a valuation of \$41,604,232. The segregations of the figures of ownership, according to localities, display only one district, that of Boston, possessing a preponderance of steamers owned by corporations over those owned by individuals, the returns for this district giving 106 steamers owned by individuals against 124 owned by corporations. Portland and New York have the two largest numbers of sailing vessels owned by individuals, while Boston, New York, and Philadelphia are practically the only districts in which sailing vessels owned by corporations appear on the register. In the columns of valuation, it is shown that the valuation of the vessels owned by corporations was \$43,768,790, while that of the vessels owned by individuals and joint stock companies amounted to \$65,760,512.

The averages of tonnage derived from Table C may be summarized as follows:

TABLE D.—SUMMARY SHOWING AVERAGE TONNAGE OF STEAMERS AND SAILING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO OWNED BY INDIVIDUALS, JOINT STOCK COMPANIES, AND CORPORATIONS.

CLASSES OF VESSELS.	AVERAGE TONNAGE PER VESSEL BY OWNERSHIP.		
	Individual.	Joint stock.	Corporation.
Steamers and sailing vessels	178	353	563
Steamers	101	314	597
Sailing vessels	196	438	250

CONSTRUCTION.

Tables 6 and 7 present the statistics of construction, and correspond in the plan of their presentation with Tables 4 and 5. In Table 6 the figures showing the number, tonnage, and value of vessels built of wood, composite, or of iron and steel are assigned to each class of steamers and sailing vessels, while in Table 7 the same figures are assigned to the various districts.

Table 6, entitled "Construction by classes", and Table 7, entitled "Construction by localities", are respectively summarized in the two parts of the subjoined table:

TABLE E.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND VALUATION FOR EACH CLASS OF VESSELS AND FOR EACH DISTRICT OF THE ATLANTIC COAST AND GULF OF MEXICO, GROUPED UNDER THE HEADS OF MATERIALS OF CONSTRUCTION.

BY CLASSES.

CLASSES OF VESSELS.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.		
	Wood.		Composite.		Iron and steel.		Wood.	Composite.	Iron and steel.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	9,477	1,801,088	90	24,604	474	413,455	\$80,915,897	\$1,183,120	\$37,740,030
Steamers	2,448	427,560	24	5,365	461	404,237	35,991,510	547,830	37,015,230
Passenger and freight	612	229,165	10	4,317	188	251,457	14,988,470	280,000	21,720,310
Towing	986	52,535	6	236	103	8,588	8,554,730	21,800	1,626,800
Ferry	155	57,664			59	40,510	3,971,203		3,936,500
Yachts	142	6,111	3	353	25	4,864	1,735,890	135,000	1,649,720
Harbor	86	11,302			8	2,541	1,146,150		300,000
Miscellaneous	110	24,563	5	459	38	44,105	1,677,170	111,000	3,663,400
No traffic report	357	46,220			40	49,172	3,917,900		4,118,000
Sailing vessels	7,029	1,373,528	66	19,239	13	9,218	44,924,387	635,320	724,800
Freight	5,163	1,232,597	50	19,028	7	8,737	37,658,057	605,070	514,500
Harbor	365	15,753	3	96			1,145,790	5,750	
Yachts	619	13,875	3	72	6	481	2,450,655	20,500	210,300
Miscellaneous	51	2,510	1	43			71,360	4,000	
No traffic report	831	108,793					3,598,525		

STATISTICS OF TRANSPORTATION.

TABLE E.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND VALUATION FOR EACH CLASS OF VESSELS AND FOR EACH DISTRICT OF THE ATLANTIC COAST AND GULF OF MEXICO, GROUPED UNDER THE HEADS OF MATERIALS OF CONSTRUCTION—Continued.

BY DISTRICTS.

DISTRICTS.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.		
	Wood.		Composite.		Iron and steel.		Wood.	Composite.	Iron and steel.
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total.....	9,477	1,801,088	90	24,604	474	413,455	\$80,915,897	\$1,183,120	\$37,740,030
Steamers.....	2,448	427,560	24	5,365	461	404,237	35,991,510	547,800	37,015,230
Portland.....	134	26,408			1	510	2,461,150		50,000
Boston.....	248	68,510			27	39,780	4,937,930		4,095,200
New York.....	1,166	213,279	12	2,356	198	227,236	19,077,330	308,300	21,587,430
Philadelphia.....	250	40,622	3	988	102	49,455	3,640,150	80,000	4,872,100
Baltimore.....	172	33,189	4	1,311	53	37,256	2,323,350	117,500	2,914,200
Norfolk.....	134	10,168	4	240	16	3,142	833,609	27,000	309,000
Savannah.....	161	18,278	1	470	27	18,373	1,405,350	15,000	1,538,500
Mobile.....	113	10,201			13	1,122	769,250		198,500
New Orleans.....	34	4,260			22	27,147	294,900		1,417,800
Galveston.....	36	2,555			2	216	248,500		32,500
Sailing vessels.....	7,029	1,373,528	66	19,239	13	9,218	44,924,387	635,320	724,800
Portland.....	1,640	447,704	37	11,437	1	1,448	13,519,752	303,670	55,000
Boston.....	969	311,202	8	3,618			9,814,825	132,400	
New York.....	1,999	396,108	9	1,237	9	5,359	13,737,455	64,050	530,300
Philadelphia.....	694	142,425	8	2,813	3	2,411	4,773,500	125,200	139,500
Baltimore.....	532	40,464	1	71			1,462,060	4,000	
Norfolk.....	284	9,966	2	41			411,260	2,500	
Savannah.....	299	8,432					420,925		
Mobile.....	242	9,640	1	22			425,660	3,500	
New Orleans.....	214	4,247					194,360		
Galveston.....	156	3,331					164,590		

It will be seen from the preceding table that in vessels of the Atlantic coast and Gulf of Mexico wood still continues to be the principal material, even in steamers. Some of the reasons for this are indicated in the following table, which shows the relative average value per ton of vessels built of the materials under consideration:

TABLE F.—SUMMARY SHOWING AVERAGE TONNAGE AND AVERAGE VALUE PER TON OF THE VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO CONSTRUCTED OF WOOD, COMPOSITE, AND IRON AND STEEL.

CLASSES OF VESSELS.	MATERIALS OF CONSTRUCTION.					
	Wood.		Composite.		Iron and steel.	
	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.
Steamers and sailing vessels.....	190	\$44.93	273	\$48.09	872	\$91.28
Steamers.....	175	84.18	224	102.11	877	91.57
Sailing vessels.....	195	32.71	292	33.02	709	78.63

This table shows that while the average value per ton of steamers built of wood is \$44.18, the average value of steamers built of iron and steel is \$91.57; and that while the average value per ton of the wooden sailing vessels is \$32.71, that of the iron and steel sailing vessels is \$78.63, or considerably more than twice as much per ton. The high average value per ton of composite built steamers is due to the fact that in this class of construction there are included the extremely expensive yachts registered in the Atlantic ports. One of the features of this table of averages is, that it shows an increasing figure in the average tonnage of iron and steel vessels over those of composite build, which vessels, in their turn, are of a higher average tonnage than those built of wood; the figures being 190 tons as the average of wooden vessels, 273 tons as the average of composite vessels, and 872 tons as the average of iron and steel vessels.

TRAFFIC OPERATIONS.

Tables 8, 9, and 10, constituting the report on traffic operations, and Tables 11, 12, 13, and 14, constituting the report of earnings and expenses, deal only with the steamers classified as passenger and freight steamers, with the sailing vessels classified as freighters, and the unriggered, which were moved by the steamers.

In this connection it is to be observed that the reports by districts show all commercial transactions, including receipts and shipments, correctly for each district taken alone. When these districts are combined into a total, it will be evident that freight sent from one district to another will appear as a shipment in one case and as a receipt in the other; and when tables for districts transacting business with each other are added, this will duplicate the freight and the mileage involved.

This brings into the tables formed by adding all districts a duplication of 27,983,541 tons, representing freight which appears as shipments in one district and as receipts in another district, and the mileage is duplicated in a corresponding manner to the extent of 28,560,040 miles.

The following table exhibits the freight and the mileage covered in such a way as to show commodities and mileage, stripped of all duplications. This explanation applies to all the tables and text where freight traffic and mileage are under discussion in which districts have been combined.

TABLE G.—TONS OF FREIGHT MOVED AND MILES COVERED BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, OF THE ATLANTIC COAST AND GULF OF MEXICO.

DISTRICTS.	COMMODITIES.							Miles covered.
	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.	
Total	52,712,124	14,210,581	6,038,278	1,453,953	2,692,873	3,409,990	24,846,449	44,566,298
Portland	3,597,829	10,966	1,072,705	440,020	1,194,122	344,210	535,806	5,143,854
Boston	2,532,507	17,897	85,705	330,306	115,989	21,890	1,960,720	3,142,024
New York	27,843,398	9,280,639	487,954	568,588	1,355,373	2,999,868	13,150,976	16,114,461
Philadelphia	4,674,715	1,495,740	1,197,953	17,892	14,261	36,409	1,912,460	3,938,867
Baltimore	3,673,633	1,924,458	77,485	57,908	4,533	17,363	1,791,886	4,204,252
Norfolk	3,730,782	1,447,934	684,322	9,291	2,160	5,920	1,001,155	3,063,280
Savannah	4,186,745	2,498	1,466,779	13	2,695	6,007	2,708,753	5,362,458
Mobile	919,721	20,825	535,754	6,741	3,433	5,320	347,648	1,879,244
New Orleans	901,625	3,580	415,128	1,974	299	12,955	467,689	821,236
Galveston	451,169	6,044	34,493	21,220	8	20,048	360,356	896,522

This table represents the actual commodities moved and the mileage covered by the vessels required to carry them, both as a total and by districts, and is made up as follows from the data exhibited in Table 10: each district is credited with the tonnage shipped from any port therein to another port in the same, with all freight shipped out of the district and with all freight shipped into the district from ports on the Pacific coast or from foreign ports. An additional tonnage, 233,083 tons, is credited to the district of New York, on account of freight carried by vessels belonging to that district, the freight being in transit between foreign ports.

From Table 8 it will be seen that the traffic of the Atlantic coast and Gulf of Mexico trading fleet amounted during the year of report to 80,695,665 tons of freight and 11,581,446 passengers. Of the freight, 28,791,438 tons were carried on steamers and 12,102,694 on unriggered craft towed by steamers, the remaining 39,801,533 tons being carried on sailing vessels.

DETAILS OF COMMODITIES.

An analysis of the 80,695,665 tons of freight carried by the passenger and freight carrying vessels of the Atlantic coast and Gulf of Mexico is given in Table 9. The commodities on which specific returns were secured are coal, lumber, stone, ice, cement, brick, and lime, the respective amounts being as follows:

	TONS.
Total	44,831,271
Coal	23,775,938
Lumber	10,887,627
Stone	1,991,848
Ice	4,026,499
Cement, brick, and lime	4,149,359

The other commodities make up an unspecified total of 35,864,394 tons.

STATISTICS OF TRANSPORTATION.

INTERDISTRICT TRAFFIC.

The same gross amount of tons of freight of the specified commodities given in Table 9 is used in Table 10, which presents the interdistrict traffic. By the arrangement followed in the latter table there can be seen how much freight was brought into any one district from any other district, how much was taken out of it, and what was its destination. It will be seen, for example, that the shipments from New York to Portland amounted to 1,315,246 tons; from New York to Boston, 4,410,588 tons; from New York to Philadelphia, 163,005 tons; from New York to Baltimore, 100,583 tons; from New York to Norfolk, 422,329 tons; from New York to Savannah, 567,141 tons; from New York to Mobile, 17,553 tons; from New York to New Orleans, 12,653 tons; from New York to Galveston, 186,666 tons; from New York to the Pacific coast, 171,985 tons; from New York to foreign, 1,107,142 tons; that within the district there was an internal or local movement of 17,817,212 tons, and that from all other districts there were brought into the district of New York 6,421,107 tons, making the total trade of the New York district 32,713,210 tons. A column is given showing the number of miles covered in the movement of these respective amounts of freight.

The principal facts concerning the freight movement are given in the subjoined summary:

TABLE II.—SUMMARY SHOWING THE AMOUNT OF FREIGHT MOVED AND MILES TRAVELED BY THE PASSENGER AND FREIGHT CARRYING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO IN THE VARIOUS TRAFFIC DISTRICTS.

DISTRICTS.	Tons of freight moved.	Number of miles traveled.
Total	80,695,665	73,126,338
Portland.....	5,988,284	7,256,508
Boston.....	11,990,935	9,095,795
New York.....	32,713,210	19,777,154
Philadelphia.....	6,418,448	5,415,689
Baltimore.....	5,008,839	5,838,703
Norfolk.....	5,075,198	4,365,895
Savannah.....	5,769,609	7,181,705
Mobile.....	1,003,821	2,081,010
New Orleans.....	1,144,754	1,288,269
Galveston.....	717,381	1,629,890
Pacific coast.....	307,597	561,970
Foreign.....	3,957,589	7,743,750

A large amount of the freight traffic reported on was internal; that is, it was carried on within the 10 coast districts by vessels trading either from port to port embraced in each district or on local waters. This amount of internal traffic is shown in the following summary:

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT MOVED AND MILES TRAVELED IN THE INTERNAL TRAFFIC OF THE 10 DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO.

DISTRICTS.	Tons of freight moved.	Number of miles traveled.
Total	24,495,500	14,526,768
Portland.....	483,689	1,085,833
Boston.....	465,815	643,670
New York.....	17,817,212	5,571,914
Philadelphia.....	938,024	1,034,634
Baltimore.....	899,656	1,580,938
Norfolk.....	731,767	453,565
Savannah.....	1,630,146	2,150,060
Mobile.....	488,341	1,034,080
New Orleans.....	788,503	539,514
Galveston.....	252,347	432,560

EARNINGS AND EXPENSES.

The figures which are given in Table 11 show the income and expense account of the freighting vessels of the Atlantic coast and Gulf of Mexico for the year ending December 31, 1889. They are given under the heads of "Gross earnings", "Expenses", and "Net earnings", and for steamers, sailing vessels, and unrigged craft allotted to districts. The totals for all the ports embraced in these districts show that the gross earnings of the whole operating fleet amounted to \$70,843,633 and the expenses to \$54,080,214, leaving the net earnings at \$16,763,419. The relative earnings and expenses of steamers, sailing vessels, and unrigged craft are shown in the summary on the following page.

TABLE J.—SUMMARY SHOWING THE TOTAL EARNINGS, EXPENSES, AND NET EARNINGS OF THE PASSENGER AND FREIGHT CARRYING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR ENDING DECEMBER 31, 1889.

CLASSES OF VESSELS.	Gross earnings.	Expenses.	Net earnings.
Total	\$70,843,633	\$54,080,214	\$16,763,419
Steamers	30,112,259	23,075,441	7,036,818
Sailing vessels	31,700,178	23,420,855	8,279,323
Unrigged craft	9,031,196	7,583,918	1,447,278

In Table 12 the expenses of the passenger and freight carrying vessels are divided into running and shore expenses, with the same classifications as occur in Table 11; that is, they are presented for steamers, sailing vessels, and unrigged, and for the districts of the Atlantic coast and Gulf of Mexico. The very large proportion of the whole expense which comes under the head of "Running expenses" is emphasized in this table, the figures showing that out of a total of \$54,080,214 no less than \$47,046,211 were running expenses. The relative running expenses of steamers and sailing vessels are clearly indicated in the subjoined summary:

TABLE K.—SUMMARY SHOWING THE AMOUNT OF RUNNING AND SHORE EXPENSES OF THE PASSENGER AND FREIGHT CARRYING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR ENDING DECEMBER 31, 1889.

CLASSES OF VESSELS.	Total expenses.	Running expenses.	Shore expenses.
Total	\$54,080,214	\$47,046,211	\$7,034,003
Steamers	23,075,441	19,448,817	3,626,624
Sailing vessels	23,420,855	21,120,368	2,300,487
Unrigged	7,583,918	6,477,026	1,106,892

EMPLOYÉS AND WAGES.

Out of the total of running expenses \$16,333,338 were paid during the year as wages, as shown in Table 13. That table also shows that the total amount of wages paid on board the steamers was \$5,868,525; on board sailing vessels, \$8,419,657, and on board unrigged craft, \$2,045,156. Table 14 shows the wages paid per month to every class of employés from captains to boys, together with the number of persons of each class employed during the month of report. This number of men constituted what is called the number making the ordinary crews of vessels.

GENERAL OPERATIONS.

The 8 tables, 15 to 22, inclusive, segregate the principal figures of equipment, traffic, and financial data into a separate table for each class of occupation; that is, they give all the available totals for passenger and freight vessels, ferryboats, towing boats, yachts, harbor craft, miscellaneous craft, and those making no traffic report, and a comprehensive summary.

From the information in these 8 tables 2 supplementary tables are drawn. The first presents the financial account of other vessels than those classified as passenger and freight; that is, of the ferryboats, towing boats, harbor craft, and miscellaneous craft, together with those of the passenger and freight carrying vessels, to make the total financial account of the operating fleet of the Atlantic coast and Gulf of Mexico.

TABLE L.—SUMMARY SHOWING THE GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF THE OPERATING FLEET OF THE ATLANTIC COAST AND GULF OF MEXICO.

CLASSES OF OCCUPATIONS.	Gross earnings.	Expenses.	Net earnings.
Total	\$90,147,632	\$70,226,792	\$19,920,840
Passenger and freight	70,843,633	54,080,214	16,763,419
Ferryboats	5,392,969	4,568,238	824,731
Towing boats	10,131,921	8,526,733	1,605,188
Harbor craft	2,225,751	1,729,458	496,293
Miscellaneous craft	1,553,358	1,322,149	231,209

The second supplementary table contains separate statements of the employés and wages paid on ferryboats, towing boats, harbor craft, and miscellaneous craft, these facts being shown in the summary on the following page.

STATISTICS OF TRANSPORTATION.

TABLE M.—SUMMARY SHOWING THE TOTAL WAGES PAID DURING THE YEAR TO THE TOTAL NUMBER OF MEN EMPLOYED ON THE PRINCIPAL OPERATING VESSELS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR 1889.

CLASSES OF OCCUPATIONS.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total wages paid during year.
Total	17,418	\$21.38	63,625	\$22,123,099
Passenger and freight	17,418	21.38	52,650	16,333,338
Ferryboats			1,710	1,276,847
Towing boats			6,152	3,042,066
Harbor craft			1,784	765,788
Miscellaneous craft			1,320	705,060

The number given in the column entitled "Ordinary crews" is the number required to work and officer the operating vessels reported for the different districts.

FUEL ACCOUNT.

The fuel account which is presented in Table 23 is made up from the itemized reports of all steamers; and from the summary, which is appended, it will be seen that their operations required the consumption of 2,298,418 tons of coal and 130,585 cords of wood. The cost of the coal was \$7,512,650, or an average of \$3.27 per ton, and that of the wood was \$238,837, or an average cost of \$1.83 per cord.

TABLE N.—SUMMARY SHOWING THE QUANTITIES OF COAL AND WOOD BURNED BY PASSENGER AND FREIGHT STEAMERS, FERRYBOATS, HARBOR CRAFT, AND STEAM YACHTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE YEAR 1889.

DISTRICTS.	Coal. (Tons.)	Wood. (Cords.)
Total	2,298,418	130,585
Portland	74,619	325
Boston	320,385	
New York	1,239,822	4,838
Philadelphia	301,548	000
Baltimore	170,839	
Norfolk	33,291	16,430
Savannah	65,502	33,799
Mobile	13,023	60,051
New Orleans	74,890	8,997
Galveston	4,490	5,545

COMPARATIVE STATISTICS.

The 23 tables which have been considered present the statistics for the year ending December 31, 1889, while the 15 tables numbered from 24 to 38, inclusive, give the comparative statistics either for the 2 years 1880 and 1889 or for the 10 years 1880-1889, inclusive.

Tables 24 to 27, inclusive, deal only with the 2 years of report, 1880 and 1889, the information being the summarized reports on transportation for the Tenth and Eleventh Censuses, use being made only of such tables drawn from both reports as could be comparatively presented. The only branch of transportation on the Atlantic coast and Gulf of Mexico fully reported at the Tenth Census was that conducted by steamers. The distribution of the data, it will be seen, is by states, as that segregation was adopted in the Tenth Census, and the statistics are those simply of the number, tonnage, and value of all steamers, their gross earnings, the crews, the amount paid to them in wages, and the freight and passenger traffic. The total steamer fleet of the Atlantic coast and Gulf of Mexico in 1880 numbered 2,195, with a tonnage of 613,986.02, and a valuation of \$45,394,700; the fleet in 1889 numbered 2,933, with a tonnage of 837,162, and a valuation of \$73,554,540, the increase in number being 738, in tonnage being 223,175.98, and in valuation being \$28,159,840. No balance of accounts was made in 1880, but the gross earnings of the steamers was \$44,430,765, and as that of the steamers in 1889 was \$48,003,020, it shows an increase of \$3,572,255. The increase in traffic was still more noteworthy, the freight movement in 1880 being 9,505,944 tons, while in 1889 it amounted to 28,791,438 tons, exclusive of freight carried by ferryboats at both censuses; the passenger traffic, including ferry passengers, for 1880 was 152,784,517 persons, and in 1889, 170,225,458. Only in the subject of total wages paid do the figures for 1889 show a decrease as against those of 1880, for while

the total wages paid to 24,910 men in 1880 was \$12,964,874, in 1889, 25,653 men were paid but \$11,239,169, which very clearly illustrates the difference in the scale of wages at the two dates. In 1880 the average annual wages per man on the steamers of the Atlantic coast and Gulf of Mexico was \$520.47, but in 1889 the average annual wages on the same class of craft and in the same locality was but \$438.12, a decrease of \$82.35 in the annual average wages per man.

FLEETS FOR THE DECADE.

Tables 28 to 38, inclusive, deal with the fleets registered in the ports of the Atlantic coast and Gulf of Mexico during the 10 years 1880-1889, inclusive, and have been compiled from the reports of the Bureau of Navigation. They illustrate the changes in the number and tonnage of the registered steamers, sailing vessels, and unrigged craft, the fluctuations of tonnage, the averages of the tonnage of the vessels composing the fleet in each year, the accessions to the fleet by shipbuilding, and the methods of propulsion of the steamers built during the decade. These tables are summarized as follows:

TABLE O.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	Number.	Tonnage.	Average tonnage.	YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	17,484	2,657,349	152	1885.....	17,771	2,781,791	157
1881.....	17,589	2,652,319	151	1886.....	17,362	2,659,448	153
1882.....	17,897	2,714,281	152	1887.....	17,029	2,595,307	152
1883.....	17,856	2,770,017	155	1888.....	17,180	2,587,089	151
1884.....	17,922	2,810,586	157	1889.....	17,165	2,555,649	149

TABLE P.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	Number.	Tonnage.	Average tonnage.	YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	2,251	631,802	280	1885.....	2,671	773,444	290
1881.....	2,364	644,204	273	1886.....	2,662	763,302	287
1882.....	2,532	692,059	274	1887.....	2,680	773,823	289
1883.....	2,584	730,308	283	1888.....	2,763	785,164	284
1884.....	2,693	755,754	281	1889.....	2,829	798,912	282

TABLE Q.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	Number.	Tonnage.	Average tonnage.	YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	14,600	1,912,800	131	1885.....	14,334	1,890,058	130
1881.....	14,576	1,884,739	129	1886.....	13,937	1,742,766	125
1882.....	14,593	1,876,736	129	1887.....	13,652	1,665,070	122
1883.....	14,500	1,889,438	130	1888.....	13,459	1,584,309	118
1884.....	14,489	1,918,006	132	1889.....	13,336	1,525,315	114

TABLE R.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL UNRIGGED CRAFT REGISTERED IN THE DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	Number.	Tonnage.	Average tonnage.	YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	624	113,247	181	1885.....	746	148,289	199
1881.....	649	123,376	190	1886.....	763	153,380	201
1882.....	772	144,586	187	1887.....	697	156,414	224
1883.....	772	150,271	195	1888.....	958	217,616	227
1884.....	740	145,826	197	1889.....	1,000	231,422	231

STATISTICS OF TRANSPORTATION.

TABLE S.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF THE STEAMERS AND SAILING VESSELS BUILT ON THE ATLANTIC COAST AND GULF OF MEXICO IN THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	STEAMERS.			SAILING VESSELS.		
	Number.	Tonnage.	Average tonnage.	Number.	Tonnage.	Average tonnage.
Total for 10 years.....	1,010	418,684	260	4,562	618,705	120
1880.....	141	32,974	234	397	52,071	133
1881.....	185	41,394	224	406	60,890	150
1882.....	210	56,343	268	553	93,585	169
1883.....	189	65,078	344	631	119,060	180
1884.....	197	49,036	249	634	108,200	171
1885.....	155	44,017	284	465	59,332	128
1886.....	100	19,096	191	355	33,116	93
1887.....	123	38,972	317	371	24,252	65
1888.....	161	30,466	189	333	30,313	91
1889.....	149	41,308	277	417	37,281	89

TABLE T.—SUMMARY SHOWING THE NUMBER AND TONNAGE OF PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS BUILT ON THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, INCLUSIVE.

YEARS.	METHODS OF PROPULSION.					
	Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for 10 years.....	1,291	308,338	197	98,364	122	11,982
1880.....	103	23,904	29	8,070	9	934
1881.....	145	31,061	25	9,017	15	1,316
1882.....	169	38,601	27	16,622	14	1,120
1883.....	155	55,343	24	8,532	10	1,203
1884.....	169	42,479	11	4,328	17	2,220
1885.....	121	30,655	24	12,520	10	833
1886.....	85	12,809	8	5,029	7	358
1887.....	99	29,806	14	8,420	10	716
1888.....	128	17,601	18	11,231	15	1,634
1889.....	117	25,989	17	13,680	15	1,639

CONGRESSIONAL APPROPRIATIONS.

Table 39 gives the amount appropriated by Congress for the survey, improvement, and maintenance of the ports, harbors, and landings on the Atlantic coast and Gulf of Mexico and of the rivers flowing into them, from the date of the earliest appropriation to and including that of the act of Congress of September 19, 1890. The periods in which the appropriations are grouped are from the first appropriation up to and including 1879; from 1880 to 1889, inclusive; the appropriations in 1890, and the total appropriations from first to last. The localities improved under congressional aid number nearly 400, while the items of appropriation number nearly 1,500. It will be seen from this table that the earliest appropriation made by the government for river and harbor improvement on the Atlantic coast and Gulf of Mexico was in 1821, when, by the act of March 3, \$150 was appropriated "For the purpose of enabling the Secretary of the Navy to remove obstructions placed in the river Thames in Connecticut by the commander of the American ships during the late war" (1812). Improvements of the coast waterways of Maine, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Delaware, Pennsylvania, Virginia, North Carolina, Georgia, Florida, Alabama, and Mississippi were made between 1820 and 1830; those of New Hampshire, Maryland, District of Columbia, South Carolina, and Louisiana were commenced within the next 10 years, while improvements were begun in Texas very soon after its acquisition, \$9,500 having been appropriated in 1852 for the survey of its harbors and the rivers emptying into the Gulf of Mexico. The state for which the largest amount of appropriations has been made is New York, with \$9,285,568, the magnitude of this amount being largely due to the sums expended in the removal of obstructions in Hell Gate. The state which received the next largest amount of appropriations is Louisiana, with \$8,579,136, nearly the whole of this amount having been expended in the improvements of the delta and passes of the Mississippi river. Texas, though the last to receive congressional aid, comes third in the amount so received, with \$6,482,850, this amount being due to the sums expended on Galveston harbor and bay and on various "passes".

ATLANTIC COAST AND GULF OF MEXICO.

15

TABLE U.—SUMMARY SHOWING THE AMOUNTS APPROPRIATED BY CONGRESS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS AND RIVERS OF THE ATLANTIC COAST AND GULF OF MEXICO. GIVEN BY PERIODS AND ALLOTTED TO THE RESPECTIVE STATES FOR WHICH THE APPROPRIATIONS WERE MADE.

LOCALITIES.	Date of earliest appropriations.	Total appropriations up to date.	Appropriations up to and including 1879.	Appropriations for 1880-1889, inclusive.	Appropriations September 19, 1890.
Total	1821	\$79,582,684	\$37,480,428	\$33,293,406	\$8,808,850
Maine	1826	2,490,634	1,305,884	760,250	418,500
New Hampshire.....	1836	407,500	105,000	214,500	88,000
Massachusetts.....	1824	4,833,249	2,657,909	1,668,750	506,500
Rhode Island.....	1827	1,538,950	577,700	740,250	215,000
Connecticut.....	1821	2,763,327	1,252,777	1,185,550	325,000
New York.....	1829	9,285,568	4,304,568	3,881,000	1,100,000
New Jersey.....	1829	1,893,038	551,063	1,166,975	175,000
Delaware.....	1822	4,111,265	3,168,665	814,500	128,100
Pennsylvania.....	1826	745,850	351,100	344,750	50,000
Maryland.....	1830	3,513,593	1,355,318	1,750,775	407,500
District of Columbia.....	1833	2,606,500	501,500	1,825,000	280,000
Virginia.....	1829	3,495,380	1,292,580	1,694,800	508,000
North Carolina.....	1826	4,269,309	1,919,059	1,910,250	440,000
South Carolina.....	1836	3,028,000	550,000	1,895,000	583,000
Georgia (on the Atlantic).....	1826	2,018,706	1,120,597	1,285,609	512,500
Florida (on the Atlantic).....	1829	1,369,070	146,570	982,000	240,500
Florida (on the Gulf of Mexico).....	1828	945,280	230,280	579,500	135,500
Georgia (a).....	1874	27,300	23,300	4,000	
Alabama.....	1826	2,647,502	821,752	1,301,750	524,000
Mississippi.....	1827	447,525	76,400	311,125	60,000
Louisiana.....	1836	8,579,136	7,767,489	501,647	220,000
Texas.....	1852	6,482,850	1,247,200	4,342,500	894,150
Miscellaneous (all states).....	1828	6,092,450	1,321,500	3,772,350	998,600
General appropriations (all states).....	1841	5,090,702	4,832,127	258,575	

a Rivers emptying into other rivers which flow into the Gulf of Mexico.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF 5 TONS BURDEN AND OVER, REGISTERED OR OWNED IN THE PORTS OF THE ATLANTIC COAST AND GULF OF MEXICO, BY PORTS, WITH TOTALS FOR DISTRICTS.

SUMMARY.

DISTRICTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Number.	Tonnage.	Valuation.	Number.	Tonnage.	Valuation.	Number.	Tonnage.	Valuation.	Number.	Tonnage.	Valuation.
Total.....	13,466	2,862,630	\$127,676,487	2,933	837,162	\$73,554,540	7,108	1,401,985	\$46,284,507	3,425	623,483	\$7,837,440
1. Portland.....	1,968	504,196	16,587,367	135	26,018	2,511,150	1,678	460,589	13,878,422	155	16,689	197,705
2. Boston.....	1,466	458,806	19,406,030	275	108,200	9,033,130	977	214,820	9,947,225	214	35,696	485,075
3. New York.....	5,205	1,205,684	60,538,535	1,370	442,871	40,973,060	2,017	402,704	14,331,805	1,812	360,109	5,233,670
4. Philadelphia.....	1,556	382,835	15,051,700	355	91,065	8,592,250	705	147,649	5,038,200	496	144,121	1,421,250
5. Baltimore.....	922	138,443	7,046,760	229	71,756	5,355,050	533	40,535	1,460,060	160	26,152	225,650
6. Norfolk.....	561	32,077	1,627,025	154	13,550	1,169,600	286	10,007	413,760	121	8,520	43,665
7. Savannah.....	780	63,027	3,507,860	189	37,121	2,958,850	299	8,432	420,925	292	17,474	128,025
8. Mobile.....	480	28,847	1,440,220	126	11,413	967,760	213	9,671	429,160	111	7,763	43,310
9. New Orleans.....	283	36,304	1,910,060	56	31,407	1,712,700	214	4,247	194,360	13	650	3,000
10. Galveston.....	245	12,411	500,990	38	2,771	281,000	156	3,331	164,590	51	6,309	55,400

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—Continued.

STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT.

DISTRICTS AND PORTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.
Total.....	13,466	2,862,630	\$127,676,487	2,933	837,162	\$73,554,540	7,108	1,401,985	\$46,294,507	3,425	623,483	\$7,837,440
District 1—Portland.....	1,968	504,196	16,587,367	135	26,918	2,511,150	1,678	460,569	13,878,422	155	16,689	197,795
Eastport, Me.....	52	10,094	583,835	12	4,800	423,500	40	5,294	160,135			
Lubeck, Me.....	15	1,316	27,820				15	1,316	27,820			
Machias, Me.....	206	30,896	848,540	3	80	11,600	203	30,816	836,940			
Calais and Franklin, Me.....	75	9,742	264,185				75	9,742	264,185			
Castine, Me.....	58	3,526	72,500				58	3,526	72,500			
Buckport, Me.....	25	4,040	111,520				25	4,040	111,520			
Sedgwick, Me.....	23	1,728	51,380				23	1,728	51,380			
Mount Desert Ferry, Me.....	18	1,255	20,270				18	1,255	20,270			
Deer Isle, Me.....	45	4,030	99,000				45	4,030	99,000			
Southwest Harbor, Me.....	12	677	12,350				12	677	12,350			
Sullivan, Me.....	6	445	11,000				6	445	11,000			
Ellsworth, Me.....	125	11,076	323,550	15	823	123,500	110	10,253	200,050			
Belfast and Lincolnville, Me.....	52	12,879	352,220				52	12,879	352,220			
Searsport, Me.....	26	17,219	393,265				26	17,219	393,265			
Bangor, Me.....	145	22,309	653,940	17	1,694	153,100	128	20,615	500,840			
St. George, Me.....	23	4,396	127,260				23	4,396	127,260			
Thomaston, Me.....	69	37,939	1,224,235				69	37,939	1,224,235			
Rockland, Me.....	148	25,948	786,265				148	25,948	786,265			
North Haven, Me.....	18	1,346	56,000				18	1,346	56,000			
Camden and Rockport, Me.....	54	23,019	814,190				54	23,019	814,190			
Boothbay, Me.....	32	1,856	63,300				32	1,856	63,300			
Wiscasset, Me.....	24	2,499	61,850	1	50	8,300	23	2,449	53,550			
Waldoboro, Me.....	31	11,907	436,940	4	1,661	133,000	27	10,246	303,940			
Damariscotta, Me.....	30	8,343	277,030				30	8,343	277,030			
Bath, Me.....	240	147,673	5,503,672	34	6,577	727,400	206	141,096	4,776,272			
Portland, Me.....	196	78,061	2,713,630	39	10,768	874,600	157	67,293	1,839,030			
York, Me.....	4	197	4,300				4	197	4,300			
Kennebunk, Me.....	9	2,315	77,380	1	26	3,750	8	2,289	73,630			
Saco, Me.....	11	2,134	53,265	1	43	5,000	10	2,091	48,265			
Portsmouth, N. H.....	41	8,642	363,080	8	396	47,400	33	8,246	317,680			
Unrigged craft, all ports.....	155	16,689	197,795							155	16,689	197,795
District 2—Boston.....	1,466	458,806	19,466,030	275	108,290	9,033,130	977	314,820	9,947,225	214	35,696	485,675
Salem, Mass.....	33	5,319	176,785	11	288	37,700	22	5,031	139,085			
Marblehead, Mass.....	20	1,666	80,590	3	73	4,200	17	1,593	76,390			
Newburyport, Mass.....	25	11,302	396,800	10	453	53,500	15	10,849	343,300			
Gloucester, Mass.....	55	4,849	261,735	10	549	64,500	45	4,100	197,235			
Boston, Mass.....	666	255,186	10,538,500	139	57,849	4,700,030	527	197,337	5,838,470			
Plymouth, Mass.....	13	760	28,190				11	633	17,390			
Duxbury, Mass.....	7	83	3,135	1	20	8,000	1	107	2,800			
Scituate, Mass.....	7						7	83	3,135			
Falmouth, Mass.....	20	2,601	77,045	2	31	5,700	5	80	4,490			
Provincetown, Mass.....							13	2,490	66,855			
Dennis, West Dennis, and South Dennis, Mass.....	27	8,814	277,700				27	8,814	277,700			
Chatham, Mass.....	2	36	1,100				2	36	1,100			
Wellfleet, Mass.....	12	1,775	58,350				12	1,775	58,350			
Barnstable and Hyannis, Mass.....	20	3,821	123,050				20	3,821	123,050			
Edgartown, Mass.....	11	804	27,150	1	16	1,200	10	788	25,950			
Nantucket, Mass.....	7	387	12,350	1	7	1,000	6	380	11,350			
Fall River, Mass.....	87	58,500	3,437,450	20	22,109	2,105,700	67	36,391	1,331,750			
New Bedford, Mass.....	70	25,638	848,705	13	3,275	245,400	57	22,363	603,305			
Bristol, R. I.....	19	1,355	103,020	7	318	68,600	12	1,037	34,420			
Newport, R. I.....	64	6,554	560,630	17	1,451	101,200	47	5,103	399,430			
Providence, R. I.....	94	33,860	1,968,070	40	21,851	1,576,400	54	12,009	391,670			
Unrigged craft, all ports.....	214	35,696	485,675							214	35,696	485,675
District 3—New York.....	5,205	1,205,084	60,538,535	1,376	442,871	40,973,060	2,017	402,704	14,331,805	1,812	360,109	5,233,670
New London, Conn.....	117	35,448	1,988,180	42	18,497	1,504,050	75	16,951	484,130			
Stonington, Conn.....	44	3,719	198,760	4	775	54,000	40	2,944	144,760			
New Haven, Conn.....	134	45,118	2,195,490	34	9,001	754,000	100	36,117	1,441,490			
Bridgeport, Conn.....	77	13,429	825,180	29	7,957	620,650	48	5,472	204,530			
Hartford, Conn.....	57	7,419	428,850	23	4,161	300,600	34	3,258	128,250			
Patchogue, N. Y.....	62	1,084	89,730	3	47	11,300	59	1,037	78,430			
New York, N. Y.....	2,258	656,675	43,385,250	972	360,938	32,951,410	1,286	295,737	10,433,840			
Cold Spring Harbor, N. Y.....	62	3,511	121,530				62	3,511	121,530			
Albany, N. Y.....	219	32,258	3,519,465	181	29,377	3,480,200	38	2,881	89,265			
Port Jefferson, N. Y.....	55	6,279	188,715				55	6,279	188,715			
Greenport, N. Y.....	57	6,784	283,160	4	162	16,500	53	6,622	266,660			
Sag Harbor, N. Y.....	11	1,402	108,040	1	648	80,000	10	754	22,040			
Newark, N. J.....	63	5,157	428,810	36	3,570	347,950	27	1,587	80,860			
Perth Amboy, N. J.....	177	27,292	1,543,685	47	7,738	896,400	130	19,554	647,285			
Unrigged craft, all ports.....	1,812	360,109	5,233,670							1,812	360,109	5,233,670

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—Continued.

STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT—Continued.

DISTRICTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.
District 4—Philadelphia.....	1,556	382,835	\$15,051,700	355	91,065	\$8,592,250	705	147,649	\$5,038,200	496	144,121	\$1,421,250
Tuckerton, N. J.....	14	1,868	74,600	2	68	12,600	12	1,800	62,000			
Somers Point, N. J.....	95	15,076	568,560	2	309	36,000	93	14,767	532,500			
Bridgeton, N. J.....	94	14,574	473,125	4	396	45,900	90	14,178	427,225			
Camden, N. J.....	109	19,496	1,193,300	44	19,514	901,750	65	8,972	293,550			
Burlington, N. J.....	16	1,486	114,100	16	1,486	114,100						
Trenton, N. J.....	27	1,762	43,650				27	1,762	43,650			
Philadelphia, Pa.....	542	156,721	8,994,490	249	63,535	5,882,400	293	93,186	3,112,090			
Wilmington, Del.....	143	26,086	2,098,535	38	14,757	1,599,500	105	11,329	497,035			
Milford, Del.....	1	83	6,000				1	83	6,000			
Seaford, Del.....	11	1,286	50,640				11	1,286	50,640			
New Castle, Del.....	5	181	7,900				5	181	7,900			
Chincoteague, Va.....	3	105	5,550				3	105	5,550			
Unrigged craft, all ports.....	496	144,121	1,421,250							496	144,121	1,421,250
District 5—Baltimore.....	922	138,443	7,046,760	229	71,756	5,355,050	533	40,535	1,466,060	160	26,152	225,650
Baltimore, Md.....	527	93,760	5,783,200	172	61,962	4,619,200	355	31,798	1,164,000			
Crisfield, Md.....	73	4,281	166,550	3	171	18,900	70	4,110	147,650			
Annapolis, Md.....	23	1,017	30,300				23	1,017	30,300			
Georgetown, D. C.....	97	10,528	707,310	42	8,939	654,000	55	1,589	53,310			
Onancock, Va.....	7	426	28,100	2	238	18,600	4	164	7,700			
Cape Charles, Va.....							1	24	1,800			
Alexandria, Va.....	35	2,279	105,650	10	446	44,350	25	1,833	61,300			
Unrigged craft, all ports.....	160	26,152	225,650							160	26,152	225,650
District 6—Norfolk.....	561	32,077	1,627,025	154	13,550	1,169,600	286	10,007	413,760	121	8,520	43,065
Norfolk, Va.....	120	8,312	604,440	66	5,575	483,400	54	2,737	121,040			
Newport News, Va.....	10	1,677	114,000	4	1,198	93,000	6	479	21,000			
Petersburg, Va.....	2	87	8,500	2	37	8,500						
Richmond, Va.....	23	2,813	201,000	16	1,178	139,100	7	1,635	61,900			
Tappahannock, Va.....	13	581	23,100				13	581	23,100			
Edenton, N. C.....	58	3,204	209,280	19	2,536	179,900	39	668	29,380			
Newbern, N. C.....	105	3,051	149,880	22	1,310	94,000	83	1,741	55,880			
Beaufort, N. C.....	57	1,295	67,800	2	73	8,300	55	1,222	59,580			
Wilmington, N. C.....	52	2,587	205,280	23	1,643	163,400	29	944	41,880			
Unrigged craft, all ports.....	121	8,520	43,065							121	8,520	43,065
District 7—Savannah.....	780	63,027	3,507,800	189	37,121	2,958,850	299	8,432	420,925	292	17,474	128,025
Georgetown, S. C.....	19	1,523	129,600	13	1,010	199,600	6	513	20,000			
Charleston, S. C.....	165	7,586	528,200	38	5,458	417,800	127	2,128	110,400			
Beaufort, S. C.....	25	967	113,450	10	670	91,500	15	297	21,950			
Savannah, Ga.....	80	23,594	1,629,550	36	21,541	1,554,100	44	2,053	75,450			
Brunswick, Ga.....	40	4,140	336,850	20	3,687	297,950	14	453	88,900			
St. Mary, Ga.....	2	57	7,000	1	34	5,000	1	23	2,000			
Fernandina, Fla.....	6	266	32,000	2	180	23,000	4	86	9,000			
Jacksonville, Fla.....	61	4,407	369,500	44	3,034	319,800	17	1,373	49,700			
St. Augustine, Fla.....	31	818	91,175	15	549	78,400	16	269	12,775			
Key West, Fla.....	59	2,195	142,450	4	958	61,700	55	1,237	80,750			
Unrigged craft, all ports.....	292	17,474	128,025							292	17,474	128,025
District 8—Mobile.....	480	28,847	1,440,220	126	11,413	967,750	243	9,671	429,160	111	7,763	43,310
Tampa, Fla.....	28	1,010	81,700	15	791	74,500	13	219	7,200			
Cedar Keys, Fla.....	22	853	62,200	10	628	44,400	12	225	17,800			
Apalachicola, Fla.....	20	1,376	109,150	13	1,257	101,000	7	119	8,150			
Pensacola, Fla.....	103	5,668	376,250	28	1,989	245,300	75	3,679	130,950			
Mobile, Ala.....	83	6,295	436,680	49	4,915	394,650	34	1,378	42,010			
Shieldsboro, Miss.....	113	5,884	330,950	11	1,833	107,900	102	4,051	223,050			
Unrigged craft, all ports.....	111	7,763	43,310							111	7,763	43,310
District 9—New Orleans.....	283	36,304	1,910,060	56	31,407	1,712,700	214	4,247	194,380	13	650	3,000
New Orleans, La.....	192	33,328	1,720,130	31	30,263	1,578,400	161	3,065	141,730			
Brashear, La.....	61	1,712	143,980	21	1,016	112,300	40	696	31,680			
Lake Charles, La.....	17	614	42,950	4	128	22,000	13	486	20,950			
Unrigged craft, all ports.....	13	650	3,000							13	650	3,000
District 10—Galveston.....	245	12,411	500,996	38	2,771	281,000	156	3,331	164,590	51	6,309	55,400
Galveston, Tex.....	167	5,133	389,790	35	2,482	248,000	132	2,651	141,790			
Corpus Christi, Tex.....	12	408	11,500	1	21	3,000	11	387	8,600			
Brownsville, Tex.....	7	399	38,000	2	268	30,000	5	131	8,000			
Eagle Pass, Tex.....	8	162	6,300				8	162	6,300			
Unrigged craft, all ports.....	51	6,309	55,400							51	6,309	55,400

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND

TABLE 2.—EQUIPMENT OF FLEETS BY CLASSIFIED TONNAGE—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS

BY DISTRICTS.

STEAMERS.

[illegible]

SAILING VESSELS.

[illegible]

BY STATES.

STEAMERS.

[illegible]

SAILING VESSELS.

[illegible]

CONSTRUCTION—Continued.

AND SAILING VESSELS OF 5 TONS BURDEN AND OVER, CLASSIFIED ACCORDING TO SIZE, BY DISTRICTS AND STATES.

BY DISTRICTS.

STEAMERS.

300 TO 400 TONS.			200 TO 300 TONS.			100 TO 200 TONS.			50 TO 100 TONS.			5 TO 50 TONS.			
Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	Num- ber.	Tonnage.	Valuation.	
100	35,166	\$2,822,170	127	31,587	\$2,615,480	417	57,977	\$7,208,855	516	36,646	\$5,782,980	1,203	32,181	\$5,711,175	1
1	393	35,000	5	1,354	122,000	19	2,759	321,800	23	1,513	209,400	68	1,951	298,950	2
7	2,490	298,000	4	1,004	96,400	28	3,946	531,800	41	2,867	442,420	128	3,542	650,730	3
39	13,575	1,367,470	54	13,048	1,370,930	224	31,243	4,057,800	249	17,610	3,092,460	500	13,735	2,632,800	4
26	9,482	575,800	25	6,846	527,500	38	5,233	729,900	57	4,191	708,800	146	4,062	800,850	5
11	3,684	276,000	10	2,562	170,500	16	2,170	353,055	27	1,944	341,350	103	2,563	349,545	6
3	1,029	77,000	6	1,538	101,200	30	3,922	260,100	34	2,398	262,800	75	1,722	259,700	7
7	2,322	132,900	10	2,589	90,100	22	3,042	394,400	43	3,057	370,050	85	2,132	364,600	8
2	717	29,000	10	2,448	103,650	28	3,931	356,000	24	1,758	230,400	61	1,602	233,700	9
3	1,123	46,000	2	456	15,000	3	469	70,000	13	911	86,800	15	333	41,000	10
1	351	15,000	1	242	18,200	9	1,262	130,000	5	377	38,500	22	539	79,300	11

SAILING VESSELS.

334	117,987	3,662,891	375	93,665	2,693,340	800	113,441	3,794,350	1,283	85,895	3,775,765	3,176	69,566	3,911,605	1
77	27,364	957,816	123	30,569	883,350	375	52,477	1,389,140	372	25,947	608,790	388	10,293	244,855	2
75	26,466	740,170	61	15,435	402,035	101	14,921	547,775	123	8,823	487,865	209	5,716	530,880	3
91	31,956	1,004,155	91	22,651	642,570	176	25,470	1,142,385	429	27,271	1,650,850	910	23,105	1,639,045	4
77	27,486	812,750	84	20,991	600,900	86	12,733	429,950	96	6,448	335,310	230	5,310	280,575	5
5	1,728	56,500	3	755	17,000	33	4,321	165,050	189	12,551	437,550	280	7,637	296,440	6
4	1,350	50,500	4	1,015	37,300	12	1,451	56,100	28	1,987	102,800	237	3,696	151,310	7
4	1,301	38,000	2	508	20,000	2	262	5,500	10	684	49,500	279	4,806	281,925	8
1	336	3,000	5	1,167	58,800	8	1,128	47,800	14	938	48,800	212	3,923	208,960	9
						2	284	9,500	8	521	21,600	204	3,442	163,260	10
			2	574	22,385	3	394	1,150	14	725	32,700	137	1,638	108,355	11

BY STATES.

STEAMERS.

100	35,166	2,822,170	127	31,587	2,615,480	417	57,977	7,208,855	516	36,646	5,782,980	1,203	32,181	5,711,175	1
1	393	35,000	5	1,354	122,000	18	2,580	316,800	22	1,445	196,400	62	1,802	289,550	2
4	1,444	143,000	2	521	61,400	21	179	5,000	1	68	13,000	6	149	29,400	3
3	1,046	125,000	2	483	35,000	7	3,119	441,300	33	2,298	327,920	96	2,768	473,530	4
4	1,836	86,000	10	2,442	212,200	28	827	90,500	8	589	114,500	32	774	177,200	5
32	11,197	1,198,470	39	9,402	1,062,230	174	3,921	519,350	11	742	98,500	51	1,204	210,850	6
10	3,659	359,000	10	2,543	172,400	29	24,197	3,164,350	220	15,543	2,745,960	421	11,706	2,308,200	7
17	6,097	259,800	17	4,271	405,200	28	4,148	444,100	31	2,309	349,800	52	1,376	229,900	8
2	768	40,000	3	736	46,400	3	3,832	613,800	40	2,916	534,000	104	2,901	549,000	9
8	2,680	216,000	6	1,502	112,500	16	378	46,100	4	291	73,000	18	520	134,700	10
3	1,004	60,000	3	853	43,000	16	2,170	853,055	18	1,331	251,500	74	1,808	258,445	11
3	1,029	77,000	4	971	60,000	18	2,328	148,500	5	337	54,600	22	554	78,400	12
3	975	73,000	3	774	56,200	12	1,594	111,600	24	1,637	221,750	49	1,219	175,900	13
3	1,040	34,900	4	1,022	52,100	6	1,063	109,700	14	1,037	76,300	33	704	96,500	14
1	307	25,000	6	1,567	38,000	8	897	109,700	17	1,193	156,000	26	599	113,100	15
1	335	9,000	3	762	29,500	24	1,063	129,800	8	586	90,000	23	667	121,650	16
1	382	20,000	7	1,686	74,150	11	3,222	351,200	30	2,173	240,750	71	1,734	256,550	17
3	1,123	46,000	2	456	15,000	1	1,650	158,700	10	698	82,700	20	537	70,100	18
1	351	15,000	1	242	18,200	1	132	5,000	2	165	31,000	6	197	36,900	19
			2	456	15,000	3	460	70,000	13	911	86,800	15	333	41,000	20
			1	242	18,200	9	1,262	130,000	5	377	38,500	22	539	79,300	21

SAILING VESSELS.

334	117,987	3,662,891	375	93,665	2,693,340	800	113,441	3,794,350	1,283	85,895	3,775,765	3,176	69,566	3,911,605	1
75	26,646	897,816	120	29,774	848,350	372	52,037	1,370,940	362	25,294	589,390	380	10,093	238,975	2
2	718	60,000	3	795	35,000	3	440	18,200	10	653	19,400	8	200	5,880	3
69	24,331	690,970	50	12,524	334,085	95	13,783	407,685	114	8,102	427,165	237	4,675	415,600	4
6	2,135	79,200	11	2,911	67,350	8	1,138	140,090	9	721	60,700	62	1,641	115,280	5
20	6,910	256,790	10	2,641	70,000	47	6,714	236,130	55	4,112	129,540	100	1,614	91,930	6
68	23,994	714,240	75	18,556	522,070	117	10,945	866,855	348	21,446	1,435,850	717	18,914	1,429,455	7
21	7,614	267,125	37	9,262	274,000	42	6,130	153,250	59	3,670	167,085	233	5,408	241,895	8
56	19,916	523,750	44	10,889	280,600	29	4,518	170,200	25	1,682	120,300	46	1,157	95,030	9
3	1,008	55,000	9	2,394	96,800	27	3,896	145,000	37	2,541	129,375	42	1,285	65,760	10
5	1,728	56,500	3	755	17,000	31	3,940	154,250	172	11,493	402,150	215	6,196	246,530	11
3	1,015	43,000	4	915	37,300	1	188	7,000	9	578	18,100	45	823	28,210	12
1	335	7,500				8	1,093	38,400	22	1,459	69,700	74	1,738	71,240	13
						5	551	21,500	15	1,076	54,400	185	2,613	103,320	14
2	670	20,000							4	233	14,000	143	2,261	122,350	15
									3	212	20,000	53	1,220	66,350	16
2	631	18,000	2	508	20,000	4	545	11,500	7	472	34,050	181	2,672	170,975	17
1	336	3,000	1	225	8,800	6	845	41,800	0	381	13,350	20	436	16,860	18
			4	942	50,000	2	284	9,500	4	324	16,900	88	1,940	114,350	19
						2	284	9,500	8	521	21,600	204	3,442	163,260	20
			2	574	22,385	3	394	1,150	14	725	32,700	137	1,638	108,355	21

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—EQUIPMENT OF FLEETS BY CLASSIFIED OCCUPATIONS—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF 5 TONS BURDEN AND OVER, BY OCCUPATIONS.

DISTRICTS.	TOTAL.				STEAMERS.											
					Passenger and freight.				Towing.				Ferry.			
	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.
Total	13,466	2,862,630	\$127,676,487	\$44.60	810	487,939	\$36,989,280	\$75.81	1,095	61,359	\$10,203,333	\$166.29	214	98,174	\$7,907,790	\$80.55
1. Portland	1,968	504,196	16,587,367	32.90	56	20,478	1,674,350	81.76	49	2,782	395,960	142.31	9	735	102,500	139.46
2. Boston	1,466	458,806	19,466,030	42.43	82	86,429	6,502,620	75.24	83	4,412	702,580	159.24	15	5,367	365,280	68.06
3. New York	5,205	1,205,684	60,538,535	50.21	285	215,090	17,096,460	79.49	536	35,122	5,886,500	167.60	142	78,407	6,363,420	81.16
4. Philadelphia	1,556	382,835	15,051,700	39.32	112	61,099	4,902,200	80.23	124	5,857	1,123,000	191.74	26	9,491	828,500	87.29
5. Baltimore	922	138,443	7,046,760	50.90	84	57,562	3,783,750	65.73	103	4,038	608,900	173.08	9	1,791	80,500	48.30
6. Norfolk	561	32,077	1,627,025	50.72	55	6,809	485,000	71.23	58	2,114	317,600	150.24	3	1,268	88,000	69.40
7. Savannah	780	63,627	3,507,800	55.66	60	26,781	1,805,700	67.42	64	3,332	526,359	157.97	9	1,037	61,500	59.31
8. Mobile	480	28,847	1,440,220	49.93	44	6,573	367,400	55.90	53	2,741	415,000	151.40				
9. New Orleans	283	36,304	1,910,060	52.61	18	6,402	317,300	49.56	14	500	61,500	123.09	1	78	12,000	153.85
10. Galveston	245	12,411	500,990	40.37	8	716	54,500	76.12	11	461	76,000	164.86				

DISTRICTS.	STEAMERS—continued.											
	Yachts.				Harbor.				Miscellaneous.			
	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.
Total	170	11,328	\$3,520,610	\$310.79	94	13,843	\$1,446,150	\$104.47	153	69,127	\$5,451,570	\$78.86
1. Portland	2	43	11,500	267.44	2	324	75,000	231.48	1	408	15,000	36.76
2. Boston	36	1,856	469,300	252.86	11	951	102,250	107.52	4	1,334	124,000	92.95
3. New York	100	8,215	2,723,610	331.54	61	8,844	860,900	97.34	98	40,740	3,603,170	88.44
4. Philadelphia	13	529	165,700	313.23	2	470	53,500	113.83	16	2,872	366,800	127.72
5. Baltimore	4	331	87,000	262.84	3	1,728	187,000	108.22	5	1,713	156,500	91.36
6. Norfolk	1	42	5,000	119.05	4	169	17,500	103.55	10	1,389	68,000	48.96
7. Savannah	7	154	41,500	269.48	4	171	30,000	175.44	4	104	18,600	178.85
8. Mobile	4	83	8,800	106.02								
9. New Orleans					2	249	40,000	160.64	14	20,519	1,082,000	52.73
10. Galveston	3	75	8,200	109.33	5	937	80,000	85.38	1	48	17,500	364.58

DISTRICTS.	SAILING VESSELS.											
	Freight.				Harbor.				Yachts.			
	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.
Total	5,229	1,260,362	\$38,777,627	\$30.77	368	15,849	\$1,151,540	\$72.66	628	14,428	\$2,681,455	\$185.85
1. Portland	1,523	430,981	12,919,607	29.98	11	214	5,410	25.28	31	418	35,690	85.38
2. Boston	655	285,700	8,273,500	28.96	32	1,474	153,150	103.90	175	4,122	740,405	179.62
3. New York	1,213	343,868	10,672,110	31.04	226	11,038	672,850	60.96	319	8,357	1,764,085	211.09
4. Philadelphia	563	138,404	4,576,940	33.07	8	460	84,000	180.26	56	926	102,040	110.19
5. Baltimore	456	37,361	1,317,620	35.27	4	218	11,700	53.67	9	124	9,820	79.19
6. Norfolk	187	6,802	253,980	37.34	9	451	47,700	105.76	2	25	1,250	50.00
7. Savannah	185	6,164	244,180	39.61	42	1,238	124,720	100.74	9	118	6,500	55.08
8. Mobile	156	5,674	245,160	43.21	25	559	39,250	70.21	10	94	8,350	88.83
9. New Orleans	168	3,557	159,420	44.82	5	54	2,860	52.96	3	39	2,250	57.69
10. Galveston	123	1,851	115,110	62.19	6	137	9,900	72.26	14	205	11,065	53.98

DISTRICTS.	SAILING VESSELS—continued.								UNRIGGED CRAFT.			
	Miscellaneous.				No traffic report.				Unclassified.			
	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.	Num- ber.	Tonnage.	Valuation.	Average value per ton.
Total	52	2,553	\$75,360	\$29.52	831	108,793	\$3,598,525	\$33.08	3,425	623,483	\$7,837,440	\$12.57
1. Portland	3	47	850	18.09	110	28,929	918,865	31.69	155	16,689	197,705	11.85
2. Boston	1	46	1,500	32.61	114	23,478	778,670	33.17	214	35,096	485,675	13.61
3. New York	28	1,186	45,480	38.35	231	38,255	1,177,280	30.77	1,812	360,109	5,231,670	14.53
4. Philadelphia	10	1,135	20,800	18.33	68	6,718	254,420	37.87	496	144,121	1,421,250	9.86
5. Baltimore	1	19	1,500	78.95	63	2,813	125,420	44.50	160	28,152	226,650	8.03
6. Norfolk	1	8	150	18.25	87	2,721	110,700	40.68	121	8,520	43,665	5.13
7. Savannah	5	59	2,500	42.37	58	853	43,025	50.44	292	17,474	128,025	7.33
8. Mobile					52	3,344	136,400	40.79	111	7,763	43,310	5.56
9. New Orleans	2	15	1,100	73.33	36	582	28,730	49.36	13	650	3,000	4.62
10. Galveston	1	28	1,500	39.47	12	1,100	27,015	24.56	51	6,309	55,400	8.78

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERS.

ALL STEAMERS AND SAILING VESSELS.

DISTRICTS.	TOTAL.		NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
	Number.	Tonnage.	Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Steam and sail.....	9,151	2,061,323	7,904	1,404,883	215	75,827	1,032	580,613	\$80,509,762	\$5,250,750	\$43,768,790
Steam.....	2,626	758,577	1,548	156,974	148	46,488	930	555,115	18,905,530	4,255,700	43,284,910
Sail.....	6,525	1,302,746	6,356	1,247,909	67	29,339	102	25,498	41,604,232	995,050	483,880

STEAMERS.

PASSENGER AND FREIGHT.

Total.....	810	487,939	324	62,510	82	38,143	404	387,286	5,371,470	3,284,000	28,333,810
1. Portland.....	56	20,478	20	1,810	4	241	32	18,427	149,350	30,000	1,495,000
2. Boston.....	82	86,429	15	2,578	1	46	66	83,805	278,720	7,000	6,218,900
3. New York.....	285	215,090	103	25,202	43	27,136	139	162,752	1,905,150	2,611,000	12,580,310
4. Philadelphia.....	112	61,090	32	6,545	8	1,037	72	53,517	424,100	138,000	4,340,100
5. Baltimore.....	84	57,562	26	8,156	11	5,847	47	43,570	1,670,500	280,000	1,833,250
6. Norfolk.....	55	6,809	31	3,212	6	1,402	18	2,195	211,000	94,500	179,500
7. Savannah.....	66	26,781	42	6,097	4	1,903	20	18,781	295,950	60,000	1,449,750
8. Mobile.....	44	6,573	36	5,596	4	404	4	573	275,900	48,500	43,000
9. New Orleans.....	18	6,402	13	2,955	1	127	4	3,320	126,300	15,000	176,000
10. Galveston.....	8	716	6	379			2	337	34,500		20,000

TOWING.

Total.....	1,095	61,359	796	35,818	38	2,795	261	22,746	6,154,300	384,000	3,665,080
1. Portland.....	49	2,782	27	1,029	14	1,438	8	315	148,400	195,500	52,000
2. Boston.....	83	4,412	41	1,682	1	15	41	2,715	246,300	5,000	451,280
3. New York.....	536	35,122	383	18,808	16	1,152	137	15,162	3,274,750	166,500	2,446,250
4. Philadelphia.....	124	5,857	104	4,555			20	1,302	954,000		169,000
5. Baltimore.....	103	4,038	85	2,880	4	88	14	1,064	466,900	10,000	222,000
6. Norfolk.....	58	2,114	48	1,602			10	512	241,300		76,300
7. Savannah.....	64	3,332	51	2,441			13	891	392,350		134,000
8. Mobile.....	53	2,741	38	2,098	2	68	13	575	328,800	5,000	81,200
9. New Orleans.....	14	500	13	466	1	34			58,500	3,000	
10. Galveston.....	11	461	6	251			5	210	43,000		33,000

FERRY.

Total.....	214	98,174	63	26,945	13	3,806	138	67,423	2,315,970	375,000	5,216,730
1. Portland.....	9	735	4	83	1	136	4	516	22,000	15,000	65,500
2. Boston.....	15	5,367	8	3,393			7	1,974	199,080		166,200
3. New York.....	142	78,407	43	23,265	12	3,670	87	51,472	2,066,390	360,000	3,937,030
4. Philadelphia.....	26	9,491					26	9,491			828,500
5. Baltimore.....	9	1,791	3	53			6	1,738	6,500		80,000
6. Norfolk.....	3	1,268					3	1,268			88,000
7. Savannah.....	9	1,037	4	73			5	964	10,000		51,500
9. New Orleans.....	1	78	1	78					12,000		

YACHTS.

Total.....	170	11,328	160	10,840	1	6	9	482	3,390,920	1,200	128,480
1. Portland.....	2	43	2	43					11,500		
2. Boston.....	26	1,856	26	1,856					469,300		
3. New York.....	100	8,215	96	7,878			4	337	2,617,120		106,480
4. Philadelphia.....	13	529	11	506	1	6	1	17	159,500	1,200	5,000
5. Baltimore.....	4	331	4	331					87,000		
6. Norfolk.....	1	42	1	42					5,000		
7. Savannah.....	7	154	6	127			1	27	31,500		10,000
8. Mobile.....	4	83	2	21			2	62	3,800		5,000
10. Galveston.....	3	75	2	36			1	39	6,200		2,000

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR.

DISTRICTS.	TOTAL.		NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
	Number.	Tonnage.	Individual.		Joint stock.		Corporate.		Individual.	Jointstock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	94	13,843	51	4,650	8	1,121	35	8,072	\$456,650	\$117,000	\$872,500
1. Portland	2	324					2	324			75,000
2. Boston	11	951	4	167			7	784	12,750		89,500
3. New York	61	8,844	37	3,660	4	662	20	4,522	331,400	52,000	477,500
4. Philadelphia	2	470					2	470			53,500
5. Baltimore	3	1,728	1	126			2	1,602	50,000		137,000
6. Norfolk	4	169	3	36	1	133			7,500	10,000	
7. Savannah	4	171	4	171					30,000		
9. New Orleans	2	249			2	249				40,000	
10. Galveston	5	937	2	490	1	77	2	370	25,000	15,000	40,000

MISCELLANEOUS.

Total	153	69,127	82	9,239	1	214	70	59,674	730,220	45,000	4,676,350
1. Portland	1	408					1	408			15,000
2. Boston	4	1,334	1	40			3	1,294	6,000		118,000
3. New York	98	40,740	61	7,856			37	32,884	587,820		3,015,350
4. Philadelphia	16	2,872	6	424	1	214	9	2,234	82,800	45,000	259,000
5. Baltimore	5	1,713	3	245			2	1,468	7,000		149,500
6. Norfolk	10	1,389	6	508			4	881	25,000		43,000
7. Savannah	4	104	4	104					18,600		
9. New Orleans	14	20,519	1	62			13	20,457	3,000		1,079,000
10. Galveston	1	48					1	48			17,500

NO TRAFFIC REPORT.

Total	90	16,807	72	6,972	5	403	13	9,432	486,000	49,500	392,000
1. Portland	3	716	2	41			1	675	5,000		75,000
2. Boston	2	21	1	7	1	14			1,000	1,000	
3. New York	43	9,485	34	3,680	2	277	7	5,528	346,100	40,000	167,000
4. Philadelphia	9	673	8	611	1	62			44,850	1,000	
5. Baltimore	7	2,906	4	800			3	2,106	18,900		116,000
6. Norfolk	1	197	1	197					8,000		
7. Savannah	9	629	8	579	1	50			24,000	7,500	
8. Mobile	5	774	5	774					9,750		
9. New Orleans	4	1,148	3	53			1	1,095	10,000		52,000
10. Galveston	7	258	6	230			1	28	18,300		2,000

SAILING VESSELS.

FREIGHT.

Total	5,229	1,260,362	5,124	1,209,053	48	29,181	57	23,128	37,423,227	937,350	417,050
1. Portland	1,523	430,981	1,497	411,692	22	18,718	4	571	12,214,107	687,600	17,900
2. Boston	655	285,700	626	268,033			29	17,607	7,993,300		280,200
3. New York	1,213	343,868	1,187	333,196	17	8,403	9	2,269	10,413,860	211,250	47,000
4. Philadelphia	563	138,404	555	136,949	2	74	6	1,381	4,549,040	4,200	23,700
5. Baltimore	456	37,361	454	37,104	1	215	1	42	1,308,620	6,000	3,000
6. Norfolk	187	6,802	185	6,393			2	409	241,480		12,500
7. Savannah	185	6,164	185	6,164					244,180		
8. Mobile	156	5,674	144	4,114	6	771	6	789	184,110	28,300	32,750
9. New Orleans	168	3,557	168	3,557					159,420		
10. Galveston	123	1,851	123	1,851					115,110		

HARBOR.

Total	368	15,849	332	14,176	15	884	21	789	1,072,790	47,300	31,450
1. Portland	11	214	11	214					5,410		
2. Boston	32	1,474	32	1,474					153,150		
3. New York	226	11,038	198	9,635	11	680	17	723	618,000	29,700	25,150
4. Philadelphia	8	466	8	466					84,000		
5. Baltimore	4	218	4	218					11,700		
6. Norfolk	9	451	8	387	1	64			46,700	1,000	
7. Savannah	42	1,238	42	1,238					124,720		
8. Mobile	25	559	22	447	2	96	1	16	23,250	15,000	1,000
9. New Orleans	5	54	5	54					2,860		
10. Galveston	6	137	2	43	1	44	3	50	3,000	1,600	5,300

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY CLASSES—Continued.

SAILING VESSELS—Continued.

YACHTS.

DISTRICTS.	TOTAL.		NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
	Number.	Tonnage.	Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	628	14,428	626	14,406	1	10	1	12	\$2,678,955	\$500	\$2,000
1. Portland	31	418	31	418					33,690		
2. Boston	175	4,122	175	4,122					740,405		
3. New York	319	8,357	318	8,345			1	12	1,762,085		2,000
4. Philadelphia	56	926	56	926					102,040		
5. Baltimore	9	124	9	124					9,820		
6. Norfolk	2	25	2	25					1,250		
7. Savannah	9	118	8	108	1	10			6,000	500	
8. Mobile	10	94	10	94					8,350		
9. New Orleans	3	39	3	39					2,250		
10. Galveston	14	205	14	205					11,065		

MISCELLANEOUS.

Total	52	2,553	28	941	1	43	23	1,560	37,980	4,000	33,380
1. Portland	3	47	3	47					850		
2. Boston	1	46	1	46					1,500		
3. New York	28	1,186	14	709			14	477	28,900		16,580
4. Philadelphia	10	1,135			1	43	9	1,092		4,000	16,800
5. Baltimore	1	19	1	19					1,500		
6. Norfolk	1	8	1	8					130		
7. Savannah	5	59	5	59					2,500		
9. New Orleans	2	15	2	15					1,100		
10. Galveston	1	38	1	38					1,500		

NO TRAFFIC REPORT.

Total	248	9,554	246	9,333	2	221			391,280	5,900	
1. Portland	23	941	23	941					22,110		
2. Boston	24	1,110	24	1,110					59,050		
3. New York	107	3,341	106	3,175	1	166			123,990	5,000	
4. Philadelphia	22	1,468	22	1,468					80,650		
5. Baltimore	16	1,113	16	1,113					51,320		
6. Norfolk	12	224	12	224					7,700		
7. Savannah	16	252	16	252					14,400		
8. Mobile	9	437	9	437					23,600		
9. New Orleans	9	142	8	87	1	55			3,830	900	
10. Galveston	10	526	10	526					4,630		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—OWNERSHIP BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERS.

ALL STEAMERS AND SAILING VESSELS.

DISTRICTS AND CLASSES.	TOTAL.		NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
	Number.	Tonnage.	Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	9,151	2,061,823	7,904	1,404,883	215	75,827	1,032	580,613	\$60,509,762	\$5,250,750	\$43,768,790
Steam	2,626	758,577	1,548	156,974	148	46,488	930	555,115	18,905,530	4,255,700	43,284,910
Sail	6,525	1,302,746	6,356	1,247,909	67	29,339	102	25,498	41,604,232	995,050	483,889

STEAMERS.											
District 1—Portland	122	25,486	55	3,006	19	1,815	48	20,665	336,250	240,500	1,777,500
Passenger and freight	56	20,478	20	1,810	4	241	32	18,427	149,350	30,000	1,495,000
Towing	49	2,782	27	1,029	14	1,438	8	315	148,400	185,500	52,000
Ferry	9	735	4	83	1	136	4	516	22,000	15,000	65,500
Yachts	2	43	2	43					11,500		
Harbor	2	324					2	324			75,000
Miscellaneous	1	408					1	408			15,000
No traffic report	3	716	2	41			1	675	5,000		75,000
District 2—Boston	233	100,370	106	9,723	3	75	124	90,572	1,213,150	13,000	7,041,880
Passenger and freight	82	86,429	15	2,578	1	46	66	83,805	278,720	7,000	6,216,930
Towing	83	4,412	41	1,682	1	15	41	2,715	246,300	5,000	451,280
Ferry	15	5,367	8	3,393			7	1,974	199,080		166,200
Yachts	36	1,856	36	1,856					469,300		
Harbor	11	951	4	167			7	784	12,750		89,500
Miscellaneous	4	1,334	1	40			3	1,294	6,000		118,000
No traffic report	2	21	1	7	1	14			1,000	1,000	
District 3—New York	1,265	395,903	757	90,349	77	32,897	431	272,657	11,128,730	3,228,500	22,729,930
Passenger and freight	285	215,090	103	25,202	43	27,136	139	162,752	1,905,150	2,611,000	12,580,310
Towing	536	35,122	383	18,808	16	1,152	137	15,162	3,274,750	165,500	2,445,250
Ferry	142	78,407	42	23,265	12	3,670	87	51,472	2,006,390	360,000	3,937,030
Yachts	100	8,215	96	7,878			4	337	2,617,120		106,490
Harbor	61	8,844	37	3,690	4	662	20	4,522	331,400	52,000	477,500
Miscellaneous	98	40,740	61	7,856			37	32,884	587,820		3,015,350
No traffic report	43	9,485	34	3,680	2	277	7	5,528	346,100	40,000	167,000
District 4—Philadelphia	302	80,991	161	12,641	11	1,319	130	67,031	1,665,350	185,200	5,635,100
Passenger and freight	112	61,099	32	6,545	8	1,037	72	53,517	424,100	133,000	4,340,100
Towing	124	5,857	104	4,555			20	1,302	954,000		169,000
Ferry	26	9,491					26	9,491			828,500
Yachts	13	529	11	506	1	6	1	17	159,500	1,200	5,000
Harbor	2	470					2	470			53,500
Miscellaneous	16	2,872	6	424	1	214	9	2,234	82,800	45,000	239,000
No traffic report	9	673	8	611	1	62			44,950	1,000	
District 5—Baltimore	217	70,089	126	12,577	15	5,935	74	51,557	2,306,800	290,000	2,537,750
Passenger and freight	84	57,562	26	8,136	11	5,847	47	43,579	1,670,500	280,000	1,833,250
Towing	103	4,038	85	2,886	4	88	14	1,064	468,900	10,000	222,000
Ferry	9	1,791	3	53			6	1,738	6,500		80,000
Yachts	4	331	4	331					87,000		
Harbor	3	1,728	1	126			2	1,602	50,000		137,000
Miscellaneous	5	1,713	3	245			2	1,468	7,000		149,500
No traffic report	7	2,906	4	800			3	2,106	18,900		116,000
District 6—Norfolk	132	11,988	90	5,597	7	1,535	35	4,856	497,800	104,500	386,800
Passenger and freight	55	6,809	31	3,212	6	1,402	18	2,185	211,000	94,500	179,500
Towing	58	2,114	48	1,602			10	512	241,300		76,300
Ferry	3	1,268					3	1,268			88,000
Yachts	1	42	1	42					5,000		
Harbor	4	169	3	36	1	133			7,500	10,000	
Miscellaneous	10	1,389	6	508			4	881	25,000		43,000
No traffic report	1	197	1	197					8,000		
District 7—Savannah	163	32,208	119	9,592	5	1,953	39	20,663	802,400	67,500	1,645,250
Passenger and freight	66	26,781	42	6,097	4	1,903	20	18,781	295,950	60,000	1,449,750
Towing	64	3,332	51	2,441			13	891	392,350		134,000
Ferry	9	1,037	4	73			5	964	10,000		51,500
Yachts	7	154	6	127			1	27	31,500		10,000
Harbor	4	171	4	171					30,000		
Miscellaneous	4	104	4	104					18,600		
No traffic report	9	629	8	579	1	50			24,000	7,500	
District 8—Mobile	106	10,171	81	8,489	6	472	19	1,210	618,250	53,500	129,200
Passenger and freight	44	6,573	36	5,596	4	404	4	573	275,900	48,500	43,000
Towing	53	2,741	38	2,098	2	68	13	575	328,800	5,000	81,200
Yachts	4	83	2	21			2	62	3,800		5,000
No traffic report	5	774	5	774					9,750		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—OWNERSHIP BY LOCALITIES—Continued.

STEAMERS—Continued.

DISTRICTS AND CLASSES.	TOTAL.		NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
	Number.	Tonnage.	Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
District 9—New Orleans	53	28,896	31	3,614	4	410	18	24,872	\$209,800	\$58,000	\$1,287,000
Passenger and freight	18	6,402	13	2,955	1	127	4	3,320	126,300	15,000	176,000
Towing	14	500	13	466	1	34			58,500	3,000	
Ferry	1	78	1	78					12,000		
Harbor	2	249			2	249				40,000	
Miscellaneous	14	20,519	1	62			13	20,457	3,000		1,079,000
No traffic report	4	1,148	3	53			1	1,095	10,000		32,000
District 10—Galveston	35	2,495	22	1,386	1	77	12	1,032	127,000	15,000	114,500
Passenger and freight	8	716	6	379			2	337	34,500		20,000
Towing	11	461	6	251			5	210	43,000		33,000
Yachts	3	75	2	36			1	39	6,200		2,000
Harbor	5	937	2	490	1	77	2	370	25,000	15,000	40,000
Miscellaneous	1	48					1	48			17,500
No traffic report	7	258	6	230			1	28	18,300		2,000

SAILING VESSELS.

District 1—Portland	1,591	432,601	1,565	413,312	22	18,718	4	571	12,278,167	687,600	17,900
Freight	1,523	430,981	1,497	411,692	22	18,718	4	571	12,214,107	687,600	17,900
Harbor	11	214	11	214					5,410		
Yachts	31	418	31	418					35,690		
Miscellaneous	3	47	3	47					850		
No traffic report	23	941	23	941					22,110		
District 2—Boston	887	292,452	858	274,785			29	17,667	8,947,405		280,200
Freight	655	285,700	626	268,033			29	17,667	7,933,300		280,200
Harbor	32	1,474	32	1,474					153,150		
Yachts	175	4,122	175	4,122					740,405		
Miscellaneous	1	46	1	46					1,500		
No traffic report	24	1,110	24	1,110					59,050		
District 3—New York	1,693	367,790	1,823	355,060	29	9,249	41	3,481	12,046,835	245,950	90,730
Freight	1,213	343,868	1,187	333,196	17	8,403	9	2,269	10,413,860	211,250	47,000
Harbor	226	11,038	198	9,635	11	680	17	723	618,000	29,700	25,150
Yachts	319	8,357	318	8,345			1	12	1,762,085		2,000
Miscellaneous	28	1,186	14	709			14	477	28,900		16,580
No traffic report	107	3,341	106	3,175	1	166			123,990	5,000	
District 4—Philadelphia	659	142,399	641	139,809	3	117	15	2,473	4,815,730	8,200	40,500
Freight	563	138,404	555	136,949	2	74	6	1,381	4,549,040	4,200	23,700
Harbor	8	466	8	466					84,000		
Yachts	56	926	56	926					102,040		
Miscellaneous	10	1,135			1	43	9	1,092		4,000	16,800
No traffic report	22	1,468	22	1,468					80,650		
District 5—Baltimore	486	38,835	484	38,578	1	215	1	42	1,382,960	6,000	3,000
Freight	456	37,361	454	37,104	1	215	1	42	1,308,620	6,000	3,000
Harbor	4	218	4	218					11,700		
Yachts	9	124	9	124					9,820		
Miscellaneous	1	19	1	19					1,500		
No traffic report	16	1,113	16	1,113					51,320		
District 6—Norfolk	211	7,510	208	7,037	1	64	2	409	297,260	1,000	12,500
Freight	187	6,802	185	6,393			2	409	241,480		12,500
Harbor	9	451	8	387	1	64			46,700	1,000	
Yachts	2	25	2	25					1,250		
Miscellaneous	1	8	1	8					130		
No traffic report	12	224	12	224					7,700		
District 7—Savannah	257	7,831	256	7,821	1	10			391,800	500	
Freight	185	6,164	185	6,164					244,180		
Harbor	42	1,238	42	1,238					124,720		
Yachts	9	118	8	108	1	10			6,000	500	
Miscellaneous	5	59	5	59					2,500		
No traffic report	16	252	16	252					14,400		
District 8—Mobile	200	6,764	185	5,092	8	867	7	805	239,310	43,300	33,750
Freight	156	5,674	144	4,114	6	771	6	789	184,110	28,300	32,750
Harbor	25	556	22	447	2	96	1	16	23,250	15,000	1,000
Yachts	10	94	10	94					8,350		
No traffic report	9	437	9	437					23,600		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—OWNERSHIP BY LOCALITIES—Continued.

SAILING VESSELS—Continued.

DISTRICTS AND CLASSES.	TOTAL.		NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
	Number.	Tonnage.	Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
District 9—New Orleans.....	187	3,207	186	3,752	1	55			\$169,460	\$900	
Freight.....	168	3,557	168	3,557					159,420		
Harbor.....	5	54	5	54					2,860		
Yachts.....	3	39	3	39					2,250		
Miscellaneous.....	2	15	2	15					1,100		
No traffic report.....	9	142	8	87	1	55			3,830	900	
District 10—Galveston.....	154	2,757	150	2,663	1	44	3	50	135,305	1,600	\$5,300
Freight.....	123	1,851	123	1,851					115,110		
Harbor.....	6	137	2	43	1	44	3	50	3,000	1,600	5,300
Yachts.....	14	205	14	205					11,065		
Miscellaneous.....	1	38	1	38					1,500		
No traffic report.....	10	526	10	526					4,630		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION.

ALL STEAMERS AND SAILING VESSELS.

DISTRICTS.	TOTAL.		NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
	Num- ber.	Tonnage.	Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.				
Total	10,041	2,239,147	9,477	1,801,088	90	24,604	474	413,455	\$119,839,047	\$80,915,897	\$1,183,120	\$37,740,030
Steam	2,933	837,162	2,448	427,560	24	5,365	461	404,237	73,554,540	35,901,510	547,800	37,015,230
Sail	7,108	1,401,985	7,029	1,373,528	66	19,239	13	9,218	46,284,507	44,924,387	635,320	724,800

STEAMERS.

PASSENGER AND FREIGHT.

Total	810	487,939	612	229,165	10	4,317	188	254,457	36,989,280	14,988,470	280,000	21,720,810
1. Portland	56	20,478	56	20,478					1,674,350	1,674,350		
2. Boston	82	86,429	87	53,100			15	33,329	6,502,620	3,119,120		3,383,500
3. New York	285	215,090	205	82,778	3	1,536	77	130,776	17,096,460	5,727,650	65,000	11,303,810
4. Philadelphia	112	61,099	70	25,250	3	988	39	84,861	4,902,200	1,700,200	80,000	3,122,000
5. Baltimore	84	57,562	51	24,530	2	1,227	31	31,805	3,783,750	1,481,750	110,000	2,192,000
6. Norfolk	55	6,809	47	5,057	1	96	7	1,656	485,000	348,000	10,000	127,000
7. Savannah	66	26,781	52	8,899	1	470	13	17,412	1,805,700	415,200	15,000	1,375,500
8. Mobile	44	6,573	43	6,393			1	180	367,400	355,400		12,000
9. New Orleans	18	6,402	14	2,132			4	4,270	317,300	127,300		190,000
10. Galveston	8	716	7	548			1	168	54,500	39,500		15,000

TOWING.

Total	1,095	61,359	936	52,535	6	236	103	8,588	10,203,330	8,554,730	21,800	1,626,800
1. Portland	49	2,782	49	2,782					395,900	395,900		
2. Boston	83	4,412	77	3,403			6	1,009	702,580	553,180		149,400
3. New York	536	35,122	511	32,225	2	67	23	2,830	5,686,500	5,347,200	5,300	534,000
4. Philadelphia	124	5,857	95	4,296			29	1,561	1,123,000	799,900		323,100
5. Baltimore	103	4,038	89	3,175	2	84	12	779	698,900	507,800	7,500	183,600
6. Norfolk	58	2,114	49	1,495	2	85	7	534	317,600	219,400	9,000	89,200
7. Savannah	64	3,332	50	2,371			14	961	526,350	363,350		163,000
8. Mobile	53	2,741	42	1,838			11	903	415,000	231,500		183,500
9. New Orleans	14	500	13	489			1	11	61,500	60,500		1,000
10. Galveston	11	461	11	461					76,000	76,000		

FERRY.

Total	214	98,174	155	57,664			59	40,510	7,907,700	3,971,200		3,936,500
1. Portland	9	735	9	735					102,500	102,500		
2. Boston	15	5,367	14	4,663			1	504	365,280	315,280		50,000
3. New York	142	78,407	102	45,857			40	32,550	6,363,420	3,223,420		3,140,000
4. Philadelphia	26	9,491	10	2,931			16	6,560	828,500	155,000		673,500
5. Baltimore	9	1,791	8	1,353			1	438	86,500	68,500		18,000
6. Norfolk	3	1,268	2	810			1	458	88,000	33,000		55,000
7. Savannah	9	1,037	9	1,037					61,500	61,500		
9. New Orleans	1	78	1	78					12,000	12,000		

YACHTS.

Total	170	11,328	142	6,111	3	353	25	4,664	3,520,610	1,735,890	135,000	1,649,720
1. Portland	2	43	2	43					11,500	11,500		
2. Boston	36	1,656	33	1,568			3	288	469,300	375,300		94,000
3. New York	100	8,215	80	3,580	3	353	17	4,282	2,723,610	1,102,890	135,000	1,485,720
4. Philadelphia	13	529	11	506			2	23	165,700	158,700		7,000
5. Baltimore	4	331	2	99			2	232	87,000	27,000		60,000
6. Norfolk	1	42	1	42					5,000	5,000		
7. Savannah	7	154	7	154					41,500	41,500		
8. Mobile	4	83	3	44			1	39	8,800	5,800		3,000
10. Galveston	3	75	3	75					8,200	8,200		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR.

DISTRICTS	TOTAL.		NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
	Num-ber.	Tonnage.	Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Total	94	13,843	86	11,302			8	2,541	\$1,446,150	\$1,146,150		\$300,000
1. Portland	2	324	2	324					75,000	75,000		
2. Boston	11	951	11	951					102,250	102,250		
3. New York	61	8,844	59	8,571			2	273	860,900	822,900		38,000
4. Philadelphia	2	470	1	179			1	291	53,500	18,500		35,000
5. Baltimore	3	1,728					3	1,728	187,000			187,000
6. Norfolk	4	169	4	169					17,500	17,500		
7. Savannah	4	171	4	171					30,000	30,000		
9. New Orleans	2	249					2	249	40,000			40,000
10. Galveston	5	937	5	937					80,000	80,000		

MISCELLANEOUS.

Total	153	69,127	110	24,563	5	459	38	44,105	5,451,570	1,677,170	\$111,000	3,663,400
1. Portland	1	408	1	408					15,000	15,000		
2. Boston	4	1,334	4	1,334					124,000	124,000		
3. New York	98	40,740	79	19,490	4	400	15	20,850	3,603,170	1,300,770	103,000	2,199,400
4. Philadelphia	16	2,872	8	1,466			8	1,406	866,800	139,300		227,500
5. Baltimore	5	1,713	4	369			1	1,344	156,500	16,500		140,000
6. Norfolk	10	1,389	9	1,330	1	59			68,000	60,000	8,000	
7. Savannah	4	104	4	104					18,600	18,600		
9. New Orleans	14	20,519	1	62			13	20,457	1,082,000	3,000		1,079,000
10. Galveston	1	48					1	48	17,500			17,500

NO TRAFFIC REPORT.

Total	397	95,392	357	46,220			40	49,172	8,035,900	3,917,900		4,118,000
1. Portland	16	2,148	15	1,638			1	510	238,900	196,900		50,000
2. Boston	44	7,911	42	3,291			2	4,650	707,100	348,800		418,300
3. New York	154	56,453	130	20,778			24	35,675	4,439,000	1,552,500		2,886,500
4. Philadelphia	62	10,747	55	5,994			7	4,753	1,152,550	668,550		484,000
5. Baltimore	21	4,593	18	3,663			3	930	355,400	221,800		133,600
6. Norfolk	23	1,759	22	1,265			1	494	188,500	150,700		37,800
7. Savannah	35	5,542	35	5,542					475,200	475,200		
8. Mobile	25	2,016	25	2,016					176,550	176,550		
9. New Orleans	7	3,659	5	1,499			2	2,160	199,900	92,100		107,800
10. Galveston	10	534	10	534					44,800	44,800		

SAILING VESSELS

FREIGHT.

Total	5,229	1,260,362	5,163	1,232,597	59	19,028	7	8,737	38,777,627	37,658,057	605,070	514,500
1. Portland	1,523	430,981	1,485	418,096	37	11,437	1	1,448	12,919,607	12,580,937	303,670	55,000
2. Boston	655	285,700	647	282,082	8	3,618			8,273,500	8,141,100	132,400	
3. New York	1,213	343,868	1,206	337,899	4	1,091	3	4,878	10,672,110	10,310,810	41,300	320,000
4. Philadelphia	563	138,404	553	133,223	7	2,770	3	2,411	4,576,940	4,316,240	121,200	130,500
5. Baltimore	456	37,361	455	37,290	1	71			1,317,620	1,313,020	4,000	
6. Norfolk	187	6,802	185	6,761	2	41			253,980	251,480	2,500	
7. Savannah	185	6,164	185	6,164					244,180	244,180		
8. Mobile	156	5,674	156	5,674					245,160	245,160		
9. New Orleans	168	3,557	168	3,557					159,420	159,420		
10. Galveston	123	1,851	123	1,851					115,110	115,110		

HARBOR.

Total	368	15,849	365	15,753	3	96			1,151,540	1,145,790	5,750	
1. Portland	11	214	11	214					5,410	5,410		
2. Boston	32	1,474	32	1,474					153,150	153,150		
3. New York	226	11,038	224	10,964	2	74			672,850	670,600	2,250	
4. Philadelphia	8	466	8	466					84,000	84,000		
5. Baltimore	4	218	4	218					11,700	11,700		
6. Norfolk	9	451	9	451					47,700	47,700		
7. Savannah	42	1,238	42	1,238					124,720	124,720		
8. Mobile	25	539	24	537	1	22			39,250	35,750	3,500	
9. New Orleans	5	54	5	54					2,860	2,860		
10. Galveston	6	137	6	137					9,900	9,900		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY CLASSES—Continued.

SAILING VESSELS—Continued.

YACHTS.

DISTRICTS.	TOTAL.		NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
	Num- ber.	Tonnage.	Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.				
Total	628	14,428	619	13,875	3	72	6	481	\$2,681,455	\$2,450,655	\$20,500	\$210,300
1. Portland	31	418	31	418					35,690	35,690		
2. Boston	175	4,122	175	4,122					740,405	740,405		
3. New York	319	8,357	310	7,804	3	72	6	481	1,764,085	1,533,285	20,500	210,300
4. Philadelphia	56	926	56	926					102,040	102,040		
5. Baltimore	9	124	9	124					9,820	9,820		
6. Norfolk	2	25	2	25					1,250	1,250		
7. Savannah	9	118	9	118					6,500	6,500		
8. Mobile	10	94	10	94					8,350	8,350		
9. New Orleans	3	39	3	39					2,250	2,250		
10. Galveston	14	205	14	205					11,065	11,065		

MISCELLANEOUS.

Total	52	2,553	51	2,510	1	43			75,360	71,360	4,000	
1. Portland	3	47	3	47					850	850		
2. Boston	1	46	1	46					1,500	1,500		
3. New York	28	1,186	28	1,186					45,480	45,480		
4. Philadelphia	10	1,135	9	1,092	1	43			20,800	16,800	4,000	
5. Baltimore	1	19	1	19					1,500	1,500		
6. Norfolk	1	8	1	8					130	130		
7. Savannah	5	59	5	59					2,500	2,500		
9. New Orleans	2	15	2	15					1,100	1,100		
10. Galveston	1	38	1	38					1,500	1,500		

NO TRAFFIC REPORT.

Total	831	108,793	831	108,793					3,598,525	3,598,525		
1. Portland	110	28,929	110	28,929					916,865	916,865		
2. Boston	114	23,478	114	23,478					778,670	778,670		
3. New York	231	38,255	231	38,255					1,177,280	1,177,280		
4. Philadelphia	68	6,718	68	6,718					254,420	254,420		
5. Baltimore	63	2,813	63	2,813					125,420	125,420		
6. Norfolk	87	2,721	87	2,721					110,700	110,700		
7. Savannah	58	853	58	853					43,025	43,025		
8. Mobile	52	3,344	52	3,344					136,400	136,400		
9. New Orleans	36	582	36	582					28,730	28,730		
10. Galveston	12	1,100	12	1,100					27,015	27,015		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 7.—CONSTRUCTION BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION.

ALL STEAMERS AND SAILING VESSELS.

DISTRICTS AND CLASSES.	TOTAL.		NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
	Number.	Tonnage.	Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.				
Total	10,041	2,239,147	9,477	1,801,088	90	24,604	474	418,455	\$119,839,047	\$80,915,897	\$1,183,120	\$37,740,030
Steam	2,933	837,162	2,448	427,560	24	5,365	461	404,237	73,554,540	35,991,510	547,800	37,015,230
Sail	7,108	1,401,985	7,029	1,373,528	66	19,239	13	9,218	46,284,507	44,924,387	635,320	724,800

STEAMERS.

District 1—Portland	135	26,918	134	26,408			1	510	2,511,150	2,461,150		50,000
Passenger and freight ..	56	20,478	56	20,478					1,674,350	1,674,350		
Towing	49	2,782	49	2,782					395,900	395,900		
Ferry	9	735	9	735					102,500	102,500		
Yachts	2	43	2	43					11,500	11,500		
Harbor	2	324	2	324					75,000	75,000		
Miscellaneous	1	408	1	408					15,000	15,000		
No traffic report	16	2,148	15	1,638			1	510	236,900	186,900		50,000
District 2—Boston	275	108,290	248	68,510			27	39,780	9,033,130	4,937,930		4,095,200
Passenger and freight ..	82	86,429	67	53,100			15	33,329	6,502,620	3,119,120		3,383,500
Towing	83	4,412	77	3,403			6	1,009	702,580	553,180		149,400
Ferry	15	5,367	14	4,863			1	504	365,280	315,280		50,000
Yachts	36	1,856	33	1,568			3	288	469,300	375,300		94,000
Harbor	11	951	11	951					102,250	102,250		
Miscellaneous	4	1,334	4	1,334					124,000	124,000		
No traffic report	44	7,941	42	3,291			2	4,650	767,100	348,800		418,300
District 3—New York	1,376	442,871	1,166	213,279	12	2,356	198	227,236	40,973,060	19,077,330	308,300	21,587,430
Passenger and freight ..	285	215,090	205	82,778	3	1,536	77	130,776	17,096,460	5,727,650	65,000	11,303,810
Towing	536	35,122	511	32,225	2	67	23	2,830	5,886,500	5,347,200	5,300	534,000
Ferry	142	78,407	102	45,857			40	32,550	6,363,420	3,223,420		3,140,000
Yachts	100	8,215	80	3,840	3	353	17	4,282	2,723,610	1,102,880	135,000	1,485,720
Harbor	61	8,844	59	8,571			2	273	460,900	822,900		38,000
Miscellaneous	98	40,740	79	19,490	4	400	15	20,850	3,603,170	1,300,770	103,000	2,199,400
No traffic report	154	56,453	130	20,778			24	35,675	4,439,000	1,562,500		2,886,500
District 4—Philadelphia	355	91,065	250	40,622	3	988	102	49,455	8,592,250	3,640,150	80,000	4,872,100
Passenger and freight ..	112	61,099	70	25,250	3	988	39	34,861	4,902,200	1,700,200	80,000	3,122,000
Towing	124	5,857	95	4,296			29	1,561	1,123,000	799,900		323,100
Ferry	26	9,491	10	2,931			16	6,560	828,500	155,000		673,500
Yachts	13	529	11	506			2	23	165,700	158,700		7,000
Harbor	2	470	1	179			1	291	53,500	18,500		35,000
Miscellaneous	16	2,872	8	1,466			8	1,406	366,800	139,300		227,500
No traffic report	62	10,747	55	5,994			7	4,753	1,152,550	668,550		484,000
District 5—Baltimore	229	71,756	172	33,189	4	1,311	53	37,256	5,355,050	2,323,350	117,500	2,914,200
Passenger and freight ..	84	57,562	51	24,530	2	1,227	31	31,865	3,783,750	1,481,750	110,000	2,192,000
Towing	103	4,038	89	3,175	2	84	12	779	698,000	507,800	7,500	183,800
Ferry	9	1,701	8	1,353			1	438	86,500	68,500		18,000
Yachts	4	331	2	99			2	232	87,000	27,000		60,000
Harbor	3	1,728					3	1,728	187,000			187,000
Miscellaneous	5	1,713	4	369			1	1,344	156,500	16,500		140,000
No traffic report	21	4,593	18	3,663			3	930	355,400	221,800		133,600
District 6—Norfolk	154	13,550	134	10,168	4	240	16	3,142	1,169,600	833,600	27,000	309,000
Passenger and freight ..	55	6,809	47	5,057	1	96	7	1,656	485,000	348,000	10,000	127,000
Towing	58	2,114	49	1,495	2	85	7	534	317,600	219,400	9,000	89,200
Ferry	3	1,268	2	810			1	458	88,000	33,000		55,000
Yachts	1	42	1	42					5,000	5,000		
Harbor	4	169	4	169					17,500	17,500		
Miscellaneous	10	1,389	9	1,330	1	59			68,000	60,000	8,000	
No traffic report	23	1,759	22	1,265			1	494	188,500	150,700		37,800
District 7—Savannah	189	37,121	161	18,278	1	470	27	18,373	2,958,850	1,405,350	15,000	1,538,500
Passenger and freight ..	66	26,781	52	8,899	1	470	13	17,412	1,805,700	415,200	15,000	1,375,500
Towing	64	3,332	50	2,371			14	961	526,350	363,350		163,000
Ferry	9	1,037	9	1,037					61,500	61,500		
Yachts	7	154	7	154					41,500	41,500		
Harbor	4	171	4	171					30,000	30,000		
Miscellaneous	4	104	4	104					18,600	18,600		
No traffic report	35	5,542	35	5,542					475,200	475,200		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 7.—CONSTRUCTION BY LOCALITIES—Continued.

STEAMERS—Continued.

DISTRICTS AND CLASSES.	TOTAL.		NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
	Number.	Tonnage.	Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
District 8—Mobile.....	126	11,413	113	10,291			13	1,122	\$967,750	\$769,250		\$198,500
Passenger and freight.....	44	6,573	43	6,393			1	180	367,400	355,400		12,000
Towing.....	53	2,741	42	1,838			11	903	415,000	231,500		183,500
Yachts.....	4	83	3	44			1	39	8,800	5,800		3,000
No traffic report.....	25	2,016	25	2,016					176,550	176,550		
District 9—New Orleans.....	56	31,407	34	4,260			22	27,147	1,712,700	294,900		1,417,800
Passenger and freight.....	18	6,402	14	2,132			4	4,270	317,300	127,300		190,000
Towing.....	14	500	13	489			1	11	61,500	60,500		1,000
Ferry.....	1	78	1	78					12,000	12,000		
Harbor.....	2	249					2	249	40,000			40,000
Miscellaneous.....	14	20,519	1	62			13	20,457	1,082,000	3,000		1,079,000
No traffic report.....	7	3,659	5	1,499			2	2,160	199,900	92,100		107,800
District 10—Galveston.....	38	2,771	36	2,555			2	216	281,000	248,500		32,500
Passenger and freight.....	8	716	7	548			1	168	54,500	39,500		15,000
Towing.....	11	461	11	461					76,000	76,000		
Yachts.....	3	75	3	75					8,200	8,200		
Harbor.....	5	937	5	937					80,000	80,000		
Miscellaneous.....	1	48					1	48	17,500			17,500
No traffic report.....	10	534	10	534					44,800	44,800		

SAILING VESSELS.

District 1—Portland.....	1,678	460,589	1,640	447,704	37	11,437	1	1,448	13,878,422	13,519,752	\$303,670	55,000
Freight.....	1,523	430,981	1,485	418,096	37	11,437	1	1,448	12,919,607	12,560,937	303,670	55,000
Harbor.....	11	214	11	214					5,410	5,410		
Yachts.....	31	418	31	418					35,690	35,690		
Miscellaneous.....	3	47	3	47					850	850		
No traffic report.....	110	28,929	110	28,929					916,865	916,865		
District 2—Boston.....	977	314,820	969	311,202	8	3,618			9,047,225	9,814,825	132,400	
Freight.....	655	285,700	647	282,082	8	3,618			8,273,500	8,141,100	132,400	
Harbor.....	32	1,474	32	1,474					153,150	153,150		
Yachts.....	175	4,122	175	4,122					740,405	740,405		
Miscellaneous.....	1	46	1	46					1,500	1,500		
No traffic report.....	114	23,478	114	23,478					778,670	778,670		
District 3—New York.....	2,017	402,704	1,999	396,108	9	1,237	9	5,359	14,331,805	13,737,455	64,050	530,300
Freight.....	1,213	343,868	1,206	337,899	4	1,091	3	4,878	10,672,110	10,310,810	41,300	320,000
Harbor.....	226	11,038	224	10,964	2	74			672,850	670,630	2,250	
Yachts.....	319	8,357	310	7,804	3	72	6	481	1,764,085	1,533,285	20,500	210,300
Miscellaneous.....	28	1,186	28	1,186					45,480	45,480		
No traffic report.....	231	38,255	231	38,255					1,177,280	1,177,280		
District 4—Philadelphia.....	705	147,649	694	142,425	8	2,813	3	2,411	5,038,200	4,773,500	125,200	139,500
Freight.....	563	138,404	553	133,223	7	2,770	3	2,411	4,576,940	4,316,240	121,200	139,500
Harbor.....	8	466	8	466					84,000	84,000		
Yachts.....	56	926	56	926					102,040	102,040		
Miscellaneous.....	10	1,135	9	1,092	1	43			20,800	16,800	4,000	
No traffic report.....	68	6,718	68	6,718					254,420	254,420		
District 5—Baltimore.....	533	40,535	532	40,464	1	71			1,466,060	1,462,060	4,000	
Freight.....	456	37,361	455	37,300	1	71			1,317,620	1,313,620	4,000	
Harbor.....	4	218	4	218					11,700	11,700		
Yachts.....	9	124	9	124					9,820	9,820		
Miscellaneous.....	1	19	1	19					1,500	1,500		
No traffic report.....	63	2,813	63	2,813					125,420	125,420		
District 6—Norfolk.....	286	10,007	284	9,966	2	41			413,760	411,260	2,500	
Freight.....	187	6,802	185	6,761	2	41			253,980	251,480	2,500	
Harbor.....	9	451	9	451					17,700	17,700		
Yachts.....	2	25	2	25					1,250	1,250		
Miscellaneous.....	1	8	1	8					130	130		
No traffic report.....	87	2,721	87	2,721					110,700	110,700		
District 7—Savannah.....	299	8,432	299	8,432					420,925	420,925		
Freight.....	185	6,164	185	6,164					244,180	244,180		
Harbor.....	42	1,238	42	1,238					124,720	124,720		
Yachts.....	9	118	9	118					6,500	6,500		
Miscellaneous.....	5	59	5	59					2,500	2,500		
No traffic report.....	58	853	58	853					43,025	43,025		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 7.—CONSTRUCTION BY LOCALITIES—Continued.

SAILING VESSELS—Continued.

DISTRICTS AND CLASSES.	TOTAL		NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
	Number.	Tonnage.	Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
District 8—Mobile	243	9,671	242	9,649	1	22			\$429,160	\$425,680	\$3,500	
Freight	156	5,674	156	5,674					245,160	245,160		
Harbor	25	559	24	537	1	22			39,250	35,750	3,500	
Yachts	10	94	10	94					8,350	8,350		
No traffic report	52	3,344	52	3,344					136,400	136,400		
District 9—New Orleans...	214	4,247	214	4,247					194,360	194,360		
Freight	168	3,557	168	3,557					159,420	159,420		
Harbor	5	54	5	54					2,860	2,860		
Yachts	3	39	3	39					2,250	2,250		
Miscellaneous	2	15	2	15					1,100	1,100		
No traffic report	36	582	36	582					28,730	28,730		
District 10—Galveston ...	156	3,331	156	3,331					164,590	164,590		
Freight	123	1,851	123	1,851					115,110	115,110		
Harbor	6	137	6	137					9,900	9,900		
Yachts	14	205	14	205					11,065	11,065		
Miscellaneous	1	38	1	38					1,500	1,500		
No traffic report	12	1,100	12	1,100					27,015	27,015		

ATLANTIC COAST AND GULF OF MEXICO.

33

TRAFFIC OPERATIONS.

TABLE 8.—TRAFFIC IN GENERAL—TRIPS, MILES COVERED, PASSENGERS CARRIED, AND TONS OF FREIGHT MOVED BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, OF THE ATLANTIC COAST AND GULF OF MEXICO.

DISTRICTS.	ALL CRAFT.				STEAMERS.				SAILING VESSELS.			UNRIGGED CRAFT.
	Trips.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Freight. (Tons.)
Total	384,888	73,126,338	83,695,065	11,581,446	157,189	22,897,838	28,791,438	11,581,446	227,699	50,228,500	39,801,533	12,102,694
1. Portland	46,738	7,571,223	6,125,437	968,604	10,896	1,101,263	1,177,599	968,604	29,842	6,463,960	4,731,379	216,459
2. Boston	46,175	10,949,160	12,353,533	2,119,296	23,561	3,419,580	3,885,454	2,119,296	25,614	7,523,580	7,260,053	1,208,025
3. New York	96,638	25,342,874	35,543,632	5,832,914	25,652	7,774,204	13,301,662	5,832,914	70,986	17,568,670	12,833,857	9,408,113
4. Philadelphia	20,134	6,019,554	6,894,909	1,448,986	4,648	1,621,064	1,722,539	1,448,986	15,486	4,395,490	4,927,123	238,247
5. Baltimore	50,206	6,241,668	5,823,741	854,464	28,170	2,255,198	2,292,355	854,464	22,036	3,986,470	3,450,372	81,014
6. Norfolk	27,900	4,412,405	5,129,690	89,066	16,980	1,865,205	2,290,751	89,066	10,920	2,547,200	2,704,717	131,222
7. Savannah	49,160	7,371,090	5,841,148	152,228	25,533	2,991,370	2,681,398	152,228	23,636	4,379,720	2,433,097	720,633
8. Mobile	22,592	2,238,830	1,076,945	90,956	12,166	737,860	375,789	90,956	10,426	1,500,970	651,176	49,980
9. New Orleans	14,302	1,333,434	1,184,206	18,944	3,438	324,204	568,259	18,944	10,864	1,009,230	595,967	19,980
10. Galveston	11,034	1,016,100	722,424	5,988	3,145	804,890	488,612	5,988	7,889	841,210	213,792	20,000

TABLE 9.—FREIGHT TRAFFIC BY COMMODITIES—AMOUNT OF EACH SELECTED COMMODITY OF THE TOTAL FREIGHT MOVED BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

DISTRICTS.	ALL CRAFT.						
	COMMODITIES. (TONS.)						
	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.
All districts	83,695,065	23,775,938	10,887,627	1,991,848	4,026,490	4,149,359	35,864,394
DISTRICTS.	STEAMERS.						
	COMMODITIES. (TONS.)						
	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.
Total	28,791,438	5,508,722	1,712,432	190,825	446,507	516,271	20,386,681
1. Portland	1,177,599	518,763	121,847	44,916	40,209	31,142	411,722
2. Boston	3,885,454	1,333,572	42,921	11,365	4,960	33,706	2,458,924
3. New York	13,301,662	3,083,246	275,185	106,827	343,904	451,129	9,041,281
4. Philadelphia	1,722,539	263,374	21,608	7,043	5,633	2,615	1,429,238
5. Baltimore	2,292,355	238,498	56,650	14,957	2,874	6,412	1,973,564
6. Norfolk	2,290,751	58,003	341,960	5,168	9,912	12,838	1,862,850
7. Savannah	2,681,398	7,098	367,206	266	31,970	4,042	2,270,756
8. Mobile	375,789	724	110,549	283	981	2,514	269,838
9. New Orleans	568,259	369,141	309,141	7,121	290	15,033	350,591
10. Galveston	488,632	5,444	2,887	4,020	8	148	480,145
DISTRICTS.	SAILING VESSELS.						
	COMMODITIES. (TONS.)						
	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.
Total	39,801,533	12,980,044	8,883,253	1,549,337	2,528,490	2,413,533	11,446,976
1. Portland	4,731,379	1,215,747	1,134,628	401,431	1,122,399	354,894	502,280
2. Boston	7,260,053	3,351,824	1,786,467	396,442	137,580	296,950	1,381,781
3. New York	12,833,857	3,547,746	1,711,369	558,843	205,915	1,002,522	5,117,462
4. Philadelphia	4,927,123	1,183,258	1,578,711	108,672	567,955	53,340	1,433,178
5. Baltimore	3,450,372	1,760,524	405,951	29,679	353,850	29,109	871,259
6. Norfolk	2,704,717	1,460,640	432,221	12,542	77,805	19,846	701,663
7. Savannah	2,433,097	376,343	1,135,287	20,810	51,782	14,489	834,397
8. Mobile	651,176	53,724	428,350	9,668	14,905	3,606	142,923
9. New Orleans	595,967	12,523	201,400	7,121	290	15,033	350,591
10. Galveston	213,792	17,715	70,889	4,020	8	21,726	99,442
DISTRICTS.	UNRIGGED CRAFT.						
	COMMODITIES. (TONS.)						
	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.
Total	12,102,694	5,287,172	291,942	251,786	1,051,502	1,189,555	4,030,737
1. Portland	216,459	167,888	14,708	10,760	37,791	14,455	17,333
2. Boston	1,208,025	1,150,213	14,708	8,925	2,400	14,455	17,333
3. New York	9,408,113	3,754,339	142,505	175,175	998,815	1,174,973	3,162,306
4. Philadelphia	238,247	105,114	10,300	36,906	57	57	122,776
5. Baltimore	81,014	11,135	21,773	36,906	57	57	11,200
6. Norfolk	131,222	98,483	3,500	12,496	70	70	19,743
7. Savannah	720,633	29,204	29,204	70	70	70	607,379
8. Mobile	49,980	49,980	49,980	49,980	49,980	49,980	49,980
9. New Orleans	19,980	19,980	19,980	19,980	19,980	19,980	19,980
10. Galveston	20,000	20,000	20,000	20,000	20,000	20,000	20,000

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT, FREIGHT AND MILEAGE—AMOUNT OF EACH SELECTED COMMODITY MOVED WITHIN OR BETWEEN TRAFFIC DISTRICTS BY THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, AND THE NUMBER OF MILES COVERED IN THE TRANSPORTATION OF SUCH FREIGHT.

SUMMARY.

INTERDISTRICT MOVEMENT.		COMMODITIES. (TONS.)							Miles covered.
From—	To—	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.	
All districts		80,665,665	23,775,938	10,887,627	1,991,848	4,026,499	4,149,359	35,864,394	73,126,338

DISTRICT 1—PORTLAND.

Total		5,988,284	1,902,398	1,180,856	454,460	1,194,122	385,817	870,631	7,256,508
Portland	1. Portland	483,689	10,932	67,945	115,771	17,089	35,883	236,069	1,085,833
Do.	2. Boston	649,008	34	292,192	70,158	8,801	128,083	149,140	1,407,330
Do.	3. New York	1,164,268		565,103	162,588	177,384	165,800	93,393	1,405,980
Do.	4. Philadelphia	605,836		42,756	60,228	497,177	768	4,907	457,564
Do.	5. Baltimore	360,788		17,840	15,293	324,708	928	2,019	246,665
Do.	6. Norfolk	112,793		6,580	5,105	87,549	10,889	2,670	76,135
Do.	7. Savannah	78,434		1,670	8,210	64,530	1,040	2,984	108,260
Do.	8. Mobile	5,860				4,607		1,253	41,372
Do.	12. Foreign	114,049		78,619	2,667	12,277	219	20,267	263,115
All districts	1. Portland	2,413,559	1,891,432	108,151	14,440		41,007	357,929	2,164,254

DISTRICT 2—BOSTON.

Total		11,990,935	5,835,361	1,786,264	415,484	124,790	255,120	3,573,916	9,995,795
Boston	2. Boston	465,815	5,465	5,563	202,636	500	5,417	246,234	643,670
Do.	1. Portland	218,069	12,184	187	2,083		8,841	194,774	440,320
Do.	3. New York	920,291		17,188	92,112	3,453	3,320	804,218	429,765
Do.	4. Philadelphia	254,411		4,943	28,043	57,611	360	163,454	168,332
Do.	5. Baltimore	215,289			3,055	27,436		184,798	194,750
Do.	6. Norfolk	10,278			517	4,101	3,739	1,921	12,910
Do.	7. Savannah	78,586			612	4,565	213	73,205	275,819
Do.	8. Mobile	4,227				2,167		2,060	10,506
Do.	9. New Orleans	2,267						2,267	3,667
Do.	10. Galveston	667						667	8,920
Do.	12. Foreign	157,819		38,570	1,248	16,156		101,845	392,868
All districts	2. Boston	9,663,207	5,817,712	1,719,813	85,178	8,801	233,230	1,798,473	7,414,268

DISTRICT 3—NEW YORK.

Total		32,713,210	10,147,444	1,870,711	830,649	1,536,210	3,169,689	15,158,527	19,777,154
New York	3. New York	17,817,212	4,439,504	202,925	503,635	1,336,388	2,672,816	8,661,944	5,571,914
Do.	1. Portland	1,315,246	1,140,674	2,980	11,960		32,766	126,866	1,018,590
Do.	2. Boston	4,410,588	3,329,862	23,067	13,553		103,107	940,999	2,255,825
Do.	4. Philadelphia	163,005		634	8,744	939	18,503	134,185	109,482
Do.	5. Baltimore	100,583	3,237		2,500		5,304	89,542	72,320
Do.	6. Norfolk	422,329	43,099		2,670	855	5,853	369,852	370,976
Do.	7. Savannah	507,141	74,125		8,997	4,677	9,957	409,385	681,980
Do.	8. Mobile	17,553	3,892		893		780	11,988	38,042
Do.	9. New Orleans	12,653	3,058		3,840		48	5,707	22,650
Do.	10. Galveston	186,666	5,301		1,600		1,779	177,986	407,162
Do.	11. Pacific coast	171,985	7,627					164,358	308,100
Do.	12. Foreign	1,107,142	170,550	57,737	2,361	6,587	510	869,397	1,079,011
All districts	3. New York	6,421,107	926,515	1,583,368	269,896	186,764	318,246	3,136,318	7,241,302

DISTRICT 4—PHILADELPHIA.

Total		6,418,448	1,497,874	1,600,231	115,695	569,988	56,304	2,578,356	5,415,689
Philadelphia	4. Philadelphia	938,024	88,032	14,793	13,427	93	28,879	792,800	1,034,634
Do.	1. Portland	306,740	301,278		397			5,065	238,046
Do.	2. Boston	2,003,406	649,261	1,167,540			1,440	185,165	1,141,448
Do.	3. New York	380,043	147,165	3,866	808			228,204	283,638
Do.	5. Baltimore	67,878	11,484	634	453		3,800	51,507	97,130
Do.	6. Norfolk	166,932	53,958			5,428	573	106,973	146,370
Do.	7. Savannah	293,057	176,302		2,787	2,146		111,822	302,700
Do.	8. Mobile	9,619	5,410			2,934		1,275	13,100
Do.	9. New Orleans	5,885	5,885						8,490
Do.	10. Galveston	26,670	3,093	734				22,843	69,246
Do.	11. Pacific coast	15,728						15,728	30,746
Do.	12. Foreign	211,420	53,872	2,080		2,920		152,538	274,152
All districts	4. Philadelphia	1,993,046	2,134	410,574	97,823	553,467	21,612	901,436	1,776,789

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT, FREIGHT AND MILEAGE—Continued.

DISTRICT 5—BALTIMORE.

INTERDISTRICT MOVEMENT.		COMMODITIES. (TONS.)							Miles covered.
From—	To—	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.	
Total		5,608,839	1,956,835	467,403	80,032	356,724	32,173	2,715,672	5,838,703
Baltimore	5. Baltimore	899,656	29,644	40,089	54,004	620	7,254	768,045	1,580,038
Do.	1. Portland	218,046	213,939	800				3,307	140,735
Do.	2. Boston	1,234,089	1,171,466					62,623	874,700
Do.	3. New York	373,744	295,507	416	2,067			75,754	272,880
Do.	4. Philadelphia	74,442		9,170				65,266	96,330
Do.	6. Norfolk	409,655	48,792	4,841	127	120	5,710	350,065	520,226
Do.	7. Savannah	431,321	102,445	5,792	200	3,793	1,040	318,051	281,656
Do.	8. Mobile	9,630	1,195				11	8,424	0,842
Do.	10. Galveston	8,148	8,148						27,080
Do.	11. Pacific coast	32,127	32,127						24,134
Do.	12. Foreign	85,261	21,195	1,576				62,490	175,105
All districts	5. Baltimore	1,832,720	32,377	404,713	23,634	352,191	18,158	1,001,647	1,838,079

DISTRICT 6—NORFOLK.

Total		5,075,198	1,503,785	776,901	17,710	100,213	32,684	2,553,907	4,355,895
Norfolk	6. Norfolk	731,767	2,689	145,014	827	767	1,726	580,714	453,565
Do.	1. Portland	232,673	223,357	5,066				4,220	134,065
Do.	2. Boston	920,301	666,841	63,163	1,467			185,830	512,300
Do.	3. New York	973,857	483,843	180,003	5,120			304,891	947,534
Do.	4. Philadelphia	236,639	2,134	71,541	788			162,176	195,660
Do.	5. Baltimore	451,803	17,656	198,287	823	47	3,850	231,140	637,444
Do.	7. Savannah	129,250	28,071	388	266	1,346	344	98,835	126,202
Do.	12. Foreign	41,881	23,343	800				17,738	42,667
All districts	6. Norfolk	1,357,027	145,849	112,579	8,419	98,053	26,764	965,363	1,306,258

DISTRICT 7—SAVANNAH.

Total		5,769,609	383,441	1,479,630	21,085	83,752	18,601	3,783,100	7,181,705
Savannah	7. Savannah	1,630,146	2,489	119,196	13	2,637	4,125	1,501,686	2,150,060
Do.	1. Portland	99,014		98,421				593	136,960
Do.	2. Boston	205,530		120,434				85,105	599,061
Do.	3. New York	1,050,884		570,340			681	479,863	1,291,280
Do.	4. Philadelphia	363,935		233,107			264	130,564	379,300
Do.	5. Baltimore	537,724		172,016			928	364,780	381,674
Do.	6. Norfolk	222,429		101,158				121,271	165,898
Do.	8. Mobile	5,301	9			58	9	5,225	45,010
Do.	9. New Orleans	234						234	20,730
Do.	12. Foreign	59,075		52,107				6,968	155,960
All districts	7. Savannah	1,595,328	380,943	12,851	21,072	81,657	12,584	1,086,811	1,852,672

DISTRICT 8—MOBILE.

Total		1,003,821	34,338	546,254	8,301	13,466	6,120	395,342	2,081,010
Mobile	8. Mobile	488,341	715	191,065	3,891	1,113	3,532	288,085	1,034,080
Do.	1. Portland	667		667					4,138
Do.	2. Boston	33,398		33,398					61,274
Do.	3. New York	67,055		65,882				1,173	147,218
Do.	4. Philadelphia	38,741		34,498				4,243	53,860
Do.	5. Baltimore	1,141		1,141					1,308
Do.	7. Savannah	5,000		5,001				65	42,630
Do.	9. New Orleans	208,574		162,273			1,788	44,513	346,686
Do.	10. Galveston	3,614		1,264	1,200			1,150	27,370
Do.	12. Foreign	68,013	20,110	40,625	1,650	2,320		3,308	148,371
All districts	8. Mobile	89,211	13,513	10,500	1,560	10,033	800	52,805	214,015

DISTRICT 9—NEW ORLEANS.

Total		1,144,754	12,523	589,854	5,814	299	14,701	521,473	1,288,269
New Orleans	9. New Orleans	788,503		368,808		32	10,941	408,722	539,514
Do.	2. Boston	2,099		765				1,334	1,833
Do.	8. Mobile	31,124	3,007	10,500	667	267		16,683	41,134
Do.	10. Galveston	40,447	573	34,368				47	193,590
Do.	12. Foreign	13,214		667			1,967	10,580	14,682
All districts	9. New Orleans	269,367	8,943	174,726	5,147		1,836	78,715	497,510

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT, FREIGHT AND MILEAGE—Continued.

DISTRICT 10—GALVESTON.

INTERDISTRICT MOVEMENT.		COMMODITIES. (TONS.)							Miles covered.
From—	To—	Total.	Coal.	Lumber.	Stone.	Ice.	Cement, brick, and lime.	All other commodities.	
Total		717,381	23,159	70,879	24,020	8	21,874	577,441	1,629,830
Galveston	10. Galveston	252,347	6,044	10,507	21,220	8	20,048	194,550	432,560
Do	3. New York	172,753		3,013				169,740	361,688
Do	4. Philadelphia	6,724		5,623				1,101	16,294
Do	8. Mobile	786						786	5,760
Do	9. New Orleans	13,516		12,453				1,063	64,810
Do	12. Foreign	4,244		2,897				1,347	11,292
All districts	10. Galveston	267,011	17,115	36,386	2,800		1,826	208,884	735,486

DISTRICT 11—PACIFIC COAST.

Total		307,597	39,754					207,843	561,970.
Pacific coast	2. Boston	2,134						2,134	17,500
Do	3. New York	79,080						79,080	154,050.
Do	4. Philadelphia	2,934						2,934	15,374
Do	5. Baltimore	3,600						3,600	12,066
All districts	11. Pacific coast	219,840	39,754					180,086	362,960.

DISTRICT 12—FOREIGN.

Total		3,957,589	349,028	518,644	18,598	46,927	156,206	2,869,186	7,743,750.
Foreign	12. Foreign	233,083	59,710	23,054	634			149,685	1,479,490
Do	1. Portland	23,104						23,104	51,600
Do	2. Boston	202,645	248	19,254				183,143	542,997
Do	3. New York	1,239,123		177,557	7,201	5,927	148,445	899,993	1,945,069.
Do	4. Philadelphia	246,370		8,296	20	740	1,717	235,606	284,593.
Do	5. Baltimore	93,914		14,795	1,510		3,348	74,261	191,662
Do	6. Norfolk	12,611						12,611	13,643
Do	7. Savannah	12,464						12,464	33,425.
Do	8. Mobile	5,111						5,111	12,249.
Do	9. New Orleans	26,238			1,307			24,931	30,483
Do	10. Galveston	799						799	2,118.
All districts	12. Foreign	1,862,118	289,070	275,668	7,926	40,260	2,696	1,246,478	3,156,421.

ATLANTIC COAST AND GULF OF MEXICO.

37

EARNINGS AND EXPENSES.

TABLE 11.—FINANCIAL ACCOUNT IN GENERAL—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, OF THE ATLANTIC COAST AND GULF OF MEXICO.

DISTRICTS.	TOTAL.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.
Total.....	\$70,843,633	\$54,080,214	\$16,763,419	\$30,112,259	\$23,075,441	\$7,036,818	\$31,700,178	\$23,420,855	\$8,279,323	\$9,031,106	\$7,583,918	\$1,447,278
1. Portland.....	11,665,006	8,775,234	2,889,772	1,394,214	1,125,757	268,457	9,846,292	7,297,317	2,548,975	424,500	352,160	72,340
2. Boston.....	13,749,837	10,582,826	3,167,011	6,157,986	4,892,136	1,265,850	7,023,063	5,230,381	1,793,287	568,183	460,309	107,876
3. New York.....	26,997,875	20,936,832	6,061,043	11,638,286	8,731,193	2,907,093	8,479,623	6,343,796	2,135,827	6,879,966	5,861,843	1,018,123
4. Philadelphia.....	8,051,133	5,704,000	2,347,133	2,979,166	2,109,551	869,615	4,359,155	3,027,063	1,332,092	712,812	567,386	145,426
5. Baltimore.....	4,379,962	3,279,283	1,100,679	3,239,950	2,436,819	803,131	957,379	708,901	248,478	182,633	133,563	49,070
6. Norfolk.....	496,634	371,801	124,833	270,550	197,801	72,749	160,184	119,436	40,748	65,900	54,564	11,336
7. Savannah.....	2,324,335	1,997,291	327,044	2,029,111	1,760,323	268,788	192,266	154,209	38,057	102,958	82,759	20,199
8. Mobile.....	998,713	812,355	186,358	647,882	542,069	105,813	275,372	213,632	61,755	75,444	56,654	18,790
9. New Orleans.....	1,943,309	1,439,731	503,578	1,685,854	1,231,311	454,543	254,655	206,420	48,235	2,000	2,000	800
10. Galveston.....	236,829	180,861	55,968	69,260	48,481	20,779	151,569	119,700	31,869	16,000	12,680	3,320

TABLE 12.—RUNNING AND SHORE EXPENSES—ANALYSIS OF THE EXPENSES OF THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

DISTRICTS.	ALL CRAFT.				STEAMERS.			
	Number of vessels.	Expenses.			Number of vessels.	Expenses.		
		Total.	Running.	Shore.		Total.	Running.	Shore.
Total.....	9,464	\$54,080,214	\$47,046,211	\$7,034,003	810	\$23,075,441	\$19,448,817	\$3,626,624
1. Portland.....	1,734	8,775,234	7,889,782	885,452	56	1,125,757	1,071,927	53,830
2. Boston.....	951	10,582,826	9,643,349	939,477	82	4,892,136	4,497,778	394,358
3. New York.....	3,310	20,936,832	17,537,122	3,399,710	285	8,731,193	7,025,708	1,705,485
4. Philadelphia.....	1,171	5,704,000	5,225,726	478,274	112	2,109,551	1,879,888	229,663
5. Baltimore.....	700	3,279,283	2,762,733	516,550	84	2,436,819	1,977,213	459,606
6. Norfolk.....	363	371,801	330,117	41,684	55	197,801	162,907	34,894
7. Savannah.....	543	1,997,291	1,788,036	209,255	66	1,760,323	1,580,607	179,716
8. Mobile.....	311	812,355	757,246	55,109	44	542,069	495,958	46,113
9. New Orleans.....	199	1,439,731	938,156	501,575	18	1,231,311	734,028	497,283
10. Galveston.....	182	180,861	173,944	6,917	8	48,481	42,807	5,674

DISTRICTS.	SAILING VESSELS.				UNRIGGED CRAFT.			
	Number of vessels.	Expenses.			Number of vessels.	Expenses.		
		Total.	Running.	Shore.		Total.	Running.	Shore.
Total.....	5,229	\$23,420,855	\$21,120,368	\$2,300,487	3,425	\$7,583,918	\$6,477,026	\$1,106,892
1. Portland.....	1,523	7,297,317	6,537,907	759,410	155	352,160	279,948	72,212
2. Boston.....	655	5,230,381	4,731,037	499,344	214	460,309	414,534	45,775
3. New York.....	1,213	6,343,796	5,606,961	736,835	1,812	5,891,843	4,904,453	987,390
4. Philadelphia.....	563	3,027,063	2,792,930	234,133	496	567,386	552,908	14,478
5. Baltimore.....	456	708,901	657,281	51,620	160	133,563	128,239	5,324
6. Norfolk.....	187	119,436	115,090	3,746	121	54,564	51,520	3,044
7. Savannah.....	185	154,209	149,685	4,524	292	82,759	77,744	5,015
8. Mobile.....	156	213,632	208,290	5,342	111	56,654	53,000	3,654
9. New Orleans.....	108	206,420	202,130	4,290	13	2,000	2,000	.....
10. Galveston.....	123	119,700	118,457	1,243	51	12,680	12,680	.....

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES BY COAST TOTALS—TOTAL WAGES PAID DURING THE YEAR TO EMPLOYÉS MAKING ORDINARY CREWS ON THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

DISTRICTS.	ALL CRAFT.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number making ordinary crews.	Wages paid during year.	Number making ordinary crews.	Total wages paid during year.	Number making ordinary crews.	Total wages paid during year.	Number making ordinary crews.	Total wages paid during year.
Total.....	52,650	\$16,333,338	15,827	\$5,868,525	31,957	\$8,419,657	4,875	\$2,045,156
1. Portland.....	13,574	2,916,063	841	298,720	12,550	2,567,183	183	50,160
2. Boston.....	7,932	2,824,930	2,672	1,058,953	5,025	1,698,494	235	67,483
3. New York.....	15,944	6,324,863	5,563	2,341,329	6,943	2,375,328	3,438	1,607,706
4. Philadelphia.....	5,663	1,814,655	2,142	758,026	3,108	932,157	413	123,572
5. Baltimore.....	3,819	944,464	1,696	514,868	1,908	351,879	215	77,717
6. Norfolk.....	1,171	253,955	488	131,477	536	89,240	147	33,238
7. Savannah.....	1,600	468,395	900	323,249	569	97,140	131	46,006
8. Mobile.....	1,517	389,805	945	249,997	500	119,456	72	29,152
9. New Orleans.....	1,041	303,456	500	172,796	538	129,220	3	1,440
10. Galveston.....	398	95,452	80	27,210	280	59,560	38	8,682

TABLE 14.—EMPLOYÉS AND WAGES IN DETAIL—MONTHLY WAGES PAID IN EACH DISTRICT TO ALL GRADES OF EMPLOYÉS ON THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS.

SUMMARY.

EMPLOYÉS.	ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.	Number making ordinary crews.	Aggregate wages for 1 month.	Average monthly wages.
Total.....	52,650	\$1,790,031	\$33.99	15,827	\$608,320	\$38.44	31,957	\$967,533	\$30.28	4,875	\$214,178	\$43.93
Captains.....	8,326	507,108	60.91	810	77,824	96.08	5,229	312,270	59.72	2,287	117,014	51.16
First mates.....	4,738	179,223	37.83	626	33,725	53.87	3,711	126,095	33.98	401	19,403	48.39
Second mates, third mates, and boatswains.....	1,826	59,740	32.72	365	15,255	41.79	1,461	44,485	30.45			
Clerks and pursers.....	570	31,626	55.48	570	31,626	55.48						
Surgeons.....	11	709	64.45	11	709	64.45						
First engineers.....	965	72,229	74.85	810	59,570	73.54				155	12,659	81.67
Second and third engineers.....	621	35,827	57.69	621	35,827	57.69						
Firemen and coal passers.....	2,258	74,342	32.92	2,240	73,594	32.85				18	748	41.56
Wheelmen and pilots.....	709	34,307	48.39	674	32,967	48.91	35	1,340	38.29			
Lookouts.....	228	6,670	29.25	209	6,239	29.85	19	431	22.68			
Watchmen.....	532	16,548	31.11	469	14,380	30.66	33	1,054	31.94	30	1,114	37.13
Cooks and bakers.....	5,505	160,625	29.18	757	26,273	34.71	4,348	121,510	27.95	400	12,642	32.11
Cooks' assistants, pantrymen, and butchers.....	737	16,600	22.52	435	10,837	24.91	302	5,763	19.08			
Seamen.....	17,418	372,396	21.38	1,019	27,489	26.98	16,399	344,907	21.03			
Deck hands and porters.....	4,677	132,521	28.33	3,093	82,123	26.55				1,584	50,398	31.82
Oilers and water tenders.....	521	20,199	38.77	521	20,199	38.77						
Stewards and storekeepers.....	430	19,651	45.70	339	16,163	47.68	91	3,488	38.33			
Waiters.....	1,614	31,864	19.74	1,614	31,864	19.74						
Boys.....	447	6,067	13.57	233	3,699	15.88	214	2,368	11.07			
Chambermaids and stewardesses.....	381	6,494	17.04	381	6,494	17.04						
Carpenters.....	145	5,285	36.45	30	1,463	48.77	115	3,822	33.23			

EARNINGS AND EXPENSES—Continued.

TABLE 14.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

ALL CRAFT.

DISTRICTS.	Number of vessels.	TOTAL.		CAPTAINS.		FIRST MATES.		SECOND MATES, THIRD MATES, AND BOATSWAINS.		CLERKS AND PURSERS.		SURGEONS.	
		Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.
Total.....	9,464	52,659	\$1,790,031	8,326	\$507,108	4,738	\$179,223	1,826	\$59,740	570	\$31,626	11	\$799
Steamers.....	810	15,827	608,320	810	77,824	626	33,725	365	15,255	570	31,626	11	799
Sailing vessels.....	5,220	31,957	967,533	5,229	312,270	3,711	126,065	1,461	44,485				
Unrigged craft.....	3,425	4,875	214,178	2,287	117,014	401	19,403						

STEAMERS.

Total.....	810	15,827	608,320	810	77,824	626	33,725	365	15,255	570	31,626	11	799
1. Portland.....	56	841	35,185	56	4,880	40	1,869	15	645	30	1,770		
2. Boston.....	82	2,672	105,018	82	9,676	80	4,880	62	2,790	80	5,268		
3. New York.....	285	5,563	228,400	285	31,411	228	12,862	101	4,478	240	12,338	8	520
4. Philadelphia.....	112	2,142	75,057	112	9,028	86	4,311	74	2,728	45	2,344	3	189
5. Baltimore.....	84	1,696	56,289	84	6,762	70	3,641	48	1,992	49	2,432		
6. Norfolk.....	55	488	13,461	55	2,989	36	1,200	6	210	13	383		
7. Savannah.....	66	900	33,501	66	6,018	36	1,780	32	1,087	25	2,035		
8. Mobile.....	44	945	34,784	44	3,672	29	1,747	11	495	61	3,179		
9. New Orleans.....	18	500	23,664	18	2,735	17	1,290	16	830	21	1,612		
10. Galveston.....	8	80	2,952	8	644	4	145			6	265		

SAILING VESSELS.

Total.....	5,220	31,957	967,533	5,229	312,270	3,711	126,065	1,461	44,485				
1. Portland.....	1,523	12,550	373,648	1,523	99,421	1,337	47,280	690	21,424				
2. Boston.....	655	5,025	162,004	655	49,470	510	19,910	293	8,969				
3. New York.....	1,213	6,943	228,587	1,213	81,878	976	33,079	335	10,056				
4. Philadelphia.....	563	3,108	99,695	563	35,925	444	15,062	98	2,805				
5. Baltimore.....	456	1,908	42,590	456	17,173	294	6,507	31	873				
6. Norfolk.....	187	536	10,853	187	5,348	66	1,333	2	70				
7. Savannah.....	185	569	13,173	185	6,222	30	825	5	110				
8. Mobile.....	158	500	14,036	156	6,296	29	804	3	78				
9. New Orleans.....	168	538	14,571	168	6,169	15	450	4	109				
10. Galveston.....	123	280	8,076	123	4,368	10	245						

UNRIGGED CRAFT.

Total.....	3,425	4,875	214,178	2,287	117,014	401	19,403						
1. Portland.....	155	183	6,140	69	2,955								
2. Boston.....	214	235	7,981	97	4,808	7	200						
3. New York.....	1,812	3,438	162,709	1,699	90,447	354	17,718						
4. Philadelphia.....	496	413	15,007	117	5,859	31	1,125						
5. Baltimore.....	160	215	7,975	97	4,112	6	250						
6. Norfolk.....	121	147	4,056	56	2,235								
7. Savannah.....	202	131	5,142	43	2,210	3	110						
8. Mobile.....	111	72	2,848	68	2,668								
9. New Orleans.....	13	3	120	3	120								
10. Galveston.....	51	38	1,600	38	1,600								

GENERAL OPERATIONS BY CLASSES.

TABLE 15.—PASSENGER AND FREIGHT VESSELS—NUMBER, TONNAGE, VALUATION, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF THE PASSENGER AND FREIGHT CARRYING VESSELS, EXCLUSIVE OF FERRYBOATS, OF THE ATLANTIC COAST AND GULF OF MEXICO

ALL CRAFT.

DISTRICTS.	Num- ber.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Passen- gers carried.	Gross earnings.	Expenses.	Net earnings.	Com- mon seamen em- ployed.	Aver- age wages per month paid common seamen.	Num- ber making ordi- nary crews.	Total wages paid during year.
All districts.....	9,464	2,371,784	\$83,604,347	384,888	73,126,338	80,695,665	11,581,446	\$70,843,633	\$54,080,214	\$16,763,419	17,418	\$21.38	52,659	\$16,333,338

STEAMERS.

Total	810	487,939	36,980,289	157,189	22,897,838	28,791,438	11,581,446	30,112,259	23,075,441	7,036,818	1,019	26.98	15,827	5,868,525
1. Portland	56	20,478	1,674,350	16,896	1,101,263	1,177,599	968,604	1,394,214	1,125,757	268,457	30	26.00	841	298,720
2. Boston	82	86,420	6,502,620	20,561	3,419,580	3,885,454	2,119,296	6,157,986	4,892,136	1,265,850	193	28.80	2,672	1,038,953
3. New York	285	215,090	17,096,460	25,652	7,774,204	13,301,662	5,832,914	11,638,286	8,731,193	2,907,093	452	25.67	5,563	2,341,329
4. Philadelphia	112	61,099	4,902,200	4,648	1,024,064	1,729,539	1,448,986	2,979,166	2,109,551	869,615	155	23.20	2,142	758,126
5. Baltimore	84	57,562	3,783,750	28,170	2,255,198	2,292,355	854,464	3,239,950	2,436,819	803,131	93	24.70	1,696	514,868
6. Norfolk	55	6,809	485,000	16,980	1,865,205	2,290,751	89,066	270,550	197,801	72,749	7	15.43	488	131,477
7. Savannah	66	26,781	1,805,700	25,533	2,991,370	2,681,398	152,228	2,029,111	1,760,323	268,788	7	21.43	900	323,249
8. Mobile	44	6,573	367,400	12,166	737,860	375,789	90,956	647,882	542,069	105,813	11	32.73	945	240,987
9. New Orleans	18	6,402	317,300	3,438	324,204	568,259	18,944	1,685,854	1,231,311	454,543	70	42.83	500	172,795
10. Galveston	8	716	54,500	3,145	804,890	488,632	5,988	69,260	48,481	20,779	1	22.00	80	27,210

SAILING VESSELS.

Total	5,229	1,260,362	38,777,627	227,699	50,228,500	39,801,533	.....	31,700,178	23,420,855	8,279,323	16,390	21.03	31,957	8,419,657
1. Portland	1,523	430,981	12,919,607	29,842	6,469,960	4,731,379	.....	9,846,292	7,297,317	2,548,975	7,157	21.48	12,550	2,567,183
2. Boston	635	285,700	8,273,500	25,614	7,529,580	7,290,053	.....	7,023,668	5,230,381	1,793,287	2,811	21.10	5,025	1,696,494
3. New York	1,213	343,868	10,672,110	70,986	17,568,670	12,833,857	.....	8,479,023	6,343,796	2,135,227	3,203	21.69	6,943	2,375,324
4. Philadelphia	563	138,404	4,576,940	15,486	4,395,490	4,927,125	.....	4,559,155	3,027,063	1,532,092	1,496	20.78	3,108	932,157
5. Baltimore	456	37,361	1,317,620	22,036	3,986,470	3,450,372	.....	957,379	706,901	248,478	704	13.91	1,908	351,879
6. Norfolk	187	6,802	253,980	10,920	2,547,200	2,704,717	.....	160,184	119,436	40,748	119	16.98	536	89,240
7. Savannah	185	6,164	244,180	23,636	4,379,720	2,433,097	.....	192,266	154,209	38,057	282	15.01	569	97,140
8. Mobile	156	5,674	245,160	10,420	1,500,970	651,170	.....	275,387	213,632	61,755	250	21.45	590	119,456
9. New Orleans	108	3,557	159,420	10,864	1,009,230	595,967	.....	254,655	200,420	48,235	262	22.68	538	129,220
10. Galveston	123	1,851	115,110	7,889	841,210	213,792	.....	151,569	119,700	31,869	115	22.12	280	59,560

UNRIGGED CRAFT.

Total	3,425	623,483	7,837,440	.....	.....	12,102,694	.....	9,031,196	7,583,918	1,447,278	.....	.....	4,875	2,045,153
1. Portland	155	16,689	197,795	.....	.....	216,459	.....	424,500	352,160	72,340	.....	.....	183	50,160
2. Boston	214	35,696	485,675	.....	.....	1,208,026	.....	568,183	460,309	107,874	.....	.....	235	67,483
3. New York	1,812	360,109	5,233,670	.....	.....	9,408,113	.....	6,879,966	5,861,843	1,018,123	.....	.....	3,438	1,607,706
4. Philadelphia	490	144,121	1,421,250	.....	.....	238,247	.....	712,812	567,386	145,426	.....	.....	413	123,572
5. Baltimore	160	26,152	225,650	.....	.....	81,014	.....	182,633	133,563	49,070	.....	.....	215	77,717
6. Norfolk	121	8,520	43,665	.....	.....	134,222	.....	65,900	54,564	11,336	.....	.....	147	33,238
7. Savannah	292	17,474	128,025	.....	.....	726,653	.....	102,958	82,759	20,199	.....	.....	131	46,006
8. Mobile	111	7,763	43,310	.....	.....	49,080	.....	75,444	56,654	18,790	.....	.....	72	20,152
9. New Orleans	13	650	3,000	.....	.....	19,080	.....	2,800	2,000	800	.....	.....	3	1,440
10. Galveston	51	6,309	55,400	.....	.....	20,000	.....	16,000	12,680	3,320	.....	.....	38	8,682

TABLE 16.—FERRYBOATS—NUMBER, TONNAGE, VALUATION, TRAFFIC OPERATIONS, AND DETAILS OF CREWS AND WAGES OF FERRYBOATS.

DISTRICTS.	Num- ber.	Ton- nage.	Valuation.	Trips.	Miles.	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
Total	214	96,174	\$7,907,700	2,777,382	3,166,152	158,644,012	\$5,392,969	\$4,568,238	\$824,731	1,710	\$1,276,847
1. Portland	9	735	102,500	65,100	54,937	523,769	32,818	30,775	2,043	51	16,951
2. Boston	15	5,367	365,280	256,185	176,650	15,490,032	347,255	299,708	47,547	90	57,817
3. New York	142	78,407	6,363,420	1,940,505	2,412,096	124,170,333	4,214,188	3,608,478	605,710	1,258	1,006,510
4. Philadelphia	26	9,491	828,500	315,354	309,406	15,011,582	566,835	462,373	124,462	183	137,052
5. Baltimore	9	1,791	86,500	85,872	95,232	1,620,926	99,844	68,112	31,732	42	19,138
6. Norfolk	3	1,288	89,000	82,200	23,975	1,471,100	53,100	50,073	3,027	23	11,205
7. Savannah	9	1,037	61,500	28,410	83,880	295,437	53,054	45,002	5,052	50	25,234
9. New Orleans	1	78	12,000	4,756	9,976	54,853	5,875	3,717	2,158	3	2,340

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 17.—TOWING BOATS—NUMBER, TONNAGE, VALUATION, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF TOWING BOATS.

DISTRICTS.	Number.	Tonnage.	Valuation.	Gross earnings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
Total	1,095	61,359	\$10,203,330	\$10,131,921	\$8,526,733	\$1,605,188	6,152	\$3,042,066
1. Portland	49	2,782	395,900	355,023	279,864	75,159	276	114,050
2. Boston	83	4,412	702,580	772,233	668,349	103,884	458	213,583
3. New York	536	35,122	5,886,500	5,835,780	5,017,893	817,887	3,174	1,656,862
4. Philadelphia	124	5,857	1,123,000	1,135,885	879,865	256,020	634	308,113
5. Baltimore	103	4,038	698,900	646,001	546,762	99,239	515	255,920
6. Norfolk	58	2,114	317,600	333,795	259,527	74,268	298	111,098
7. Savannah	64	3,332	526,350	450,412	383,283	67,129	334	162,328
8. Mobile	53	2,741	415,000	331,833	291,157	40,676	301	151,545
9. New Orleans	14	500	61,500	80,540	65,830	14,710	94	36,967
10. Galveston	11	461	76,000	190,419	134,203	56,216	68	31,591

TABLE 18.—YACHTS—NUMBER, TONNAGE, AND VALUATION OF YACHTS AND PLEASURE BOATS.

STEAMERS AND SAILING VESSELS.

DISTRICTS.	Number.	Tonnage.	Valuation.
All districts	798	25,750	\$6,202,065

STEAMERS.

Total	170	11,328	3,520,610
1. Portland	2	43	11,500
2. Boston	36	1,856	469,300
3. New York	100	8,215	2,723,610
4. Philadelphia	13	529	165,700
5. Baltimore	4	331	87,000
6. Norfolk	1	42	5,000
7. Savannah	7	154	41,500
8. Mobile	4	83	8,800
9. New Orleans			
10. Galveston	3	75	8,200

SAILING VESSELS.

Total	628	14,428	2,681,455
1. Portland	31	418	35,600
2. Boston	175	4,122	740,405
3. New York	319	8,357	1,764,085
4. Philadelphia	56	926	102,040
5. Baltimore	9	124	9,820
6. Norfolk	2	25	1,250
7. Savannah	9	118	6,500
8. Mobile	10	94	8,350
9. New Orleans	3	39	2,250
10. Galveston	14	205	11,065

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 19.—HARBOR CRAFT—NUMBER, TONNAGE, VALUATION, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF HARBOR CRAFT.

STEAMERS AND SAILING VESSELS.

DISTRICTS.	Number.	Tonnage.	Valuation.	Gross earnings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
All districts	462	29,092	\$2,597,690	\$2,225,751	\$1,729,458	\$496,293	1,784	\$765,788

STEAMERS.

Total	94	13,843	1,446,150	812,513	676,228	136,285	644	346,071
1. Portland	2	324	75,000	36,000	30,500	7,500	21	12,240
2. Boston	11	951	102,250	56,283	49,637	6,646	40	20,850
3. New York	61	8,844	860,900	526,144	432,404	93,740	382	231,461
4. Philadelphia	2	470	53,500	35,478	34,893	585	24	12,399
5. Baltimore	3	1,728	187,000	41,000	35,599	5,401	60	23,834
6. Norfolk	4	169	17,500	21,268	18,750	2,518	24	10,020
7. Savannah	4	171	30,000	21,480	15,843	5,637	43	12,590
8. Mobile								
9. New Orleans	2	249	40,000	8,460	6,500	1,960	18	4,580
10. Galveston	5	937	80,000	64,400	52,102	12,298	32	16,661

SAILING VESSELS.

Total	368	15,849	1,151,540	1,413,238	1,053,230	360,008	1,140	419,117
1. Portland	11	214	5,410	12,520	9,310	3,210	23	3,720
2. Boston	32	1,474	153,150	86,152	63,630	22,522	98	21,210
3. New York	226	11,038	672,850	1,095,614	810,820	284,794	664	299,282
4. Philadelphia	8	466	84,000	31,697	22,140	9,557	37	7,400
5. Baltimore	4	218	11,700	13,306	10,125	3,181	18	5,020
6. Norfolk	9	451	47,700	24,111	17,250	6,861	42	12,940
7. Savannah	42	1,238	124,720	92,018	74,585	17,433	104	44,780
8. Mobile	25	559	39,250	42,834	33,420	9,414	66	18,325
9. New Orleans	5	54	2,860	5,930	4,795	1,135	9	2,860
10. Galveston	6	137	9,900	9,056	7,155	1,901	19	3,580

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 20.—MISCELLANEOUS CRAFT—NUMBER, TONNAGE, VALUATION, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF MISCELLANEOUS CRAFT.

STEAMERS AND SAILING VESSELS.

DISTRICTS.	Number.	Tonnage.	Valuation.	Gross earnings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
All districts.....	205	71,680	\$5,526,030	\$1,553,358	\$1,322,149	\$231,209	1,320	\$705,060

STEAMERS.

Total	153	69,127	5,451,570	1,553,358	1,322,149	231,209	1,320	705,060
1. Portland	1	408	15,000	5,352	4,600	752	4	2,790
2. Boston	4	1,334	124,000	27,250	23,200	4,050	37	18,590
3. New York	98	40,740	3,603,170	751,183	622,379	128,804	618	373,433
4. Philadelphia	16	2,872	366,800	210,986	179,647	31,339	132	69,937
5. Baltimore	5	1,713	156,500	47,513	40,429	7,084	24	17,520
6. Norfolk	10	1,389	68,000	54,949	46,760	8,189	52	22,460
7. Savannah	4	104	18,600	8,577	7,246	1,331	15	4,304
8. Mobile								
9. New Orleans	14	20,519	1,082,000	443,385	394,338	49,047	432	194,146
10. Galveston	1	48	17,500	4,163	3,550	613	6	1,880

SAILING VESSELS. (a)

Total	52	2,553	75,360					
1. Portland	3	47	850					
2. Boston	1	40	1,500					
3. New York	28	1,186	45,480					
4. Philadelphia	10	1,135	20,800					
5. Baltimore	1	19	1,500					
6. Norfolk	1	8	130					
7. Savannah	5	59	2,500					
8. Mobile								
9. New Orleans	2	15	1,100					
10. Galveston	1	38	1,500					

a Number, tonnage, and valuation only reported.

TABLE 21.—NO TRAFFIC REPORT—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS FOR WHICH NO TRAFFIC REPORT WAS RECEIVED.

STEAMERS AND SAILING VESSELS.

DISTRICTS.	Number.	Tonnage.	Valuation.
All districts.....	1,228	204,185	\$11,634,425

STEAMERS.

Total	397	95,392	8,035,900
1. Portland	16	2,148	236,900
2. Boston	44	7,941	767,100
3. New York	154	56,453	4,439,000
4. Philadelphia	62	10,747	1,152,550
5. Baltimore	21	4,593	355,400
6. Norfolk	23	1,759	188,500
7. Savannah	35	5,542	475,200
8. Mobile	25	2,016	176,550
9. New Orleans	7	3,659	190,900
10. Galveston	10	534	44,800

SAILING VESSELS.

Total	831	108,793	3,598,525
1. Portland	110	28,929	916,865
2. Boston	114	23,478	778,670
3. New York	231	38,255	1,177,280
4. Philadelphia	68	6,718	254,420
5. Baltimore	63	2,813	125,420
6. Norfolk	87	2,721	110,700
7. Savannah	58	853	43,025
8. Mobile	52	3,344	136,400
9. New Orleans	36	582	28,730
10. Galveston	12	1,100	27,015

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—SUMMARY—NUMBER, TONNAGE, VALUATION, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF ALL VESSELS OF EVERY CLASS OF OCCUPATION OF 5 TONS BURDEN AND OVER, BY DISTRICTS.

ALL CRAFT.

DISTRICTS.	Number.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
All districts	13,466	2,862,630	\$127,676,487	3,162,270	76,292,490	80,605,665	170,225,458

ALL CRAFT—Continued.

DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total wages paid during year.
All districts	\$90,147,632	\$70,226,792	\$19,920,840	17,418	\$21.38	63,625	\$22,123,099

STEAMERS.

DISTRICTS.	Number.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	2,933	837,162	\$73,554,540	2,934,571	26,063,990	28,791,438	170,225,458
1. Portland	135	26,918	2,511,150	81,996	1,156,200	1,177,530	1,492,373
Passenger and freight	56	20,478	1,674,350	16,896	1,101,263	1,177,599	968,604
Towing	49	2,782	395,900				
Ferry	9	735	102,500	65,100	54,937		523,769
Yachts	2	43	11,500				
Harbor	2	324	75,000				
Miscellaneous	1	408	15,000				
No traffic report	16	2,148	236,900				
2. Boston	275	108,290	9,033,130	275,746	3,596,230	3,885,454	17,615,328
Passenger and freight	82	86,429	6,502,620	20,561	3,419,580	3,885,454	2,119,296
Towing	83	4,412	702,580				
Ferry	15	5,367	365,280	255,185	176,650		15,496,032
Yachts	36	1,856	468,300				
Harbor	11	951	102,250				
Miscellaneous	4	1,334	124,000				
No traffic report	44	7,941	767,100				
3. New York	1,376	442,871	40,973,060	1,966,157	10,186,300	13,301,662	130,003,247
Passenger and freight	285	215,090	17,096,460	25,652	7,774,204	13,301,662	5,832,914
Towing	536	35,122	5,886,500				
Ferry	142	78,407	6,363,420	1,940,505	2,412,096		124,170,333
Yachts	100	8,215	2,724,610				
Harbor	61	8,844	860,900				
Miscellaneous	98	40,740	3,603,170				
No traffic report	154	56,453	4,439,000				
4. Philadelphia	355	91,065	8,592,250	320,002	1,933,470	1,729,539	16,460,568
Passenger and freight	112	61,099	4,902,200	4,648	1,624,064	1,729,539	1,448,986
Towing	124	5,857	1,123,000				
Ferry	26	9,481	828,500	315,354	309,406		15,011,582
Yachts	13	529	165,700				
Harbor	2	470	53,500				
Miscellaneous	16	2,872	366,800				
No traffic report	62	10,747	1,152,550				
5. Baltimore	229	71,756	5,355,050	114,042	2,350,430	2,292,355	2,475,390
Passenger and freight	84	57,562	3,783,750	28,170	2,255,198	2,292,355	854,464
Towing	103	4,038	698,900				
Ferry	9	1,791	86,500	85,872	95,232		1,620,926
Yachts	4	331	87,000				
Harbor	3	1,728	187,000				
Miscellaneous	5	1,713	156,500				
No traffic report	21	4,593	355,400				
6. Norfolk	154	13,550	1,169,600	99,180	1,889,180	2,290,751	1,560,166
Passenger and freight	55	6,809	485,000	16,980	1,865,205	2,290,751	89,066
Towing	58	2,114	317,600				
Ferry	3	1,268	88,000	82,200	23,975		1,471,100
Yachts	1	42	5,000				
Harbor	4	169	17,500				
Miscellaneous	10	1,380	68,000				
No traffic report	23	1,759	188,500				

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—SUMMARY—Continued.

STEAMERS—Continued.

DISTRICTS.	Number.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
7. Savannah.....	180	37,121	\$2,958,850	53,943	3,075,250	2,681,398	447,665
Passenger and freight.....	66	26,781	1,805,700	25,533	2,991,370	2,681,398	152,228
Towing.....	61	3,332	526,350				
Ferry.....	9	1,037	61,500	28,410	83,880		295,437
Yachts.....	7	154	41,500				
Harbor.....	4	171	30,000				
Miscellaneous.....	4	104	18,600				
No traffic report.....	35	5,542	475,200				
8. Mobile.....	126	11,413	967,750	12,166	737,860	375,789	90,956
Passenger and freight.....	44	6,573	367,400	12,166	737,860	375,789	90,956
Towing.....	53	2,741	415,000				
Yachts.....	4	83	8,800				
No traffic report.....	25	2,016	176,550				
9. New Orleans.....	56	31,407	1,712,700	8,194	334,180	568,259	73,777
Passenger and freight.....	18	6,402	317,300	3,438	324,204	568,259	18,944
Towing.....	14	500	61,500				
Ferry.....	1	78	12,000	4,756	9,976		54,833
Harbor.....	2	249	40,000				
Miscellaneous.....	14	20,519	1,082,000				
No traffic report.....	7	3,659	199,900				
10. Galveston.....	38	2,771	281,000	3,145	804,890	488,632	5,988
Passenger and freight.....	8	710	54,500	3,145	804,890	488,632	5,988
Towing.....	11	461	76,000				
Yachts.....	3	75	8,200				
Harbor.....	5	937	80,000				
Miscellaneous.....	1	48	17,500				
No traffic report.....	10	534	44,800				

STEAMERS—Continued.

DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total wages paid during year.
Total.....	\$48,003,020	\$38,168,789	\$9,834,231	1,019	\$26.98	25,653	\$11,239,169
1. Portland.....	1,825,407	1,471,496	353,911	30	26.00	1,193	444,760
Passenger and freight.....	1,394,214	1,125,757	268,457	30	26.00	841	298,720
Towing.....	355,023	279,864	75,159			276	114,059
Ferry.....	32,818	30,775	2,043			51	16,951
Harbor.....	38,000	30,500	7,500			21	12,240
Miscellaneous.....	5,352	4,600	752			4	2,790
2. Boston.....	7,361,007	5,933,030	1,427,977	193	28.89	3,297	1,369,759
Passenger and freight.....	6,157,986	4,892,136	1,265,850	193	28.89	2,672	1,058,953
Towing.....	772,233	668,349	103,884			458	213,583
Ferry.....	347,235	299,708	47,527			90	57,817
Harbor.....	56,283	49,637	6,646			40	20,856
Miscellaneous.....	27,250	23,200	4,050			37	18,500
3. New York.....	22,965,581	18,412,347	4,553,234	452	25.67	10,995	5,609,595
Passenger and freight.....	11,638,286	8,731,193	2,907,093	452	25.67	5,563	2,341,329
Towing.....	5,835,780	5,017,893	817,887			3,174	1,656,862
Ferry.....	4,214,188	3,608,478	605,710			1,258	1,000,510
Harbor.....	526,144	432,404	93,740			282	231,461
Miscellaneous.....	751,183	622,379	128,804			618	373,433
4. Philadelphia.....	4,948,350	3,666,329	1,282,021	155	23.20	3,115	1,287,027
Passenger and freight.....	2,979,166	2,109,551	869,615	155	23.20	2,142	758,926
Towing.....	1,135,885	879,865	256,020			634	308,113
Ferry.....	586,835	462,373	124,462			183	137,652
Harbor.....	35,478	34,893	585			24	12,399
Miscellaneous.....	210,986	179,647	31,339			132	69,937
5. Baltimore.....	4,074,308	3,127,721	946,587	93	24.70	2,337	833,280
Passenger and freight.....	3,239,950	2,436,819	803,131	93	24.70	1,696	514,868
Towing.....	646,001	546,762	99,239			515	255,920
Ferry.....	99,844	68,112	31,732			42	19,138
Harbor.....	41,000	35,599	5,401			60	25,834
Miscellaneous.....	47,513	40,429	7,084			24	17,520

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—SUMMARY—Continued.

STEAMERS—Continued.

DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total wages paid during year.
6. Norfolk	\$733,662	\$572,911	\$160,751	7	\$15.43	895	\$286,260
Passenger and freight.....	270,550	197,801	72,749	7	15.43	488	131,477
Towing	333,795	259,527	74,268			298	111,098
Ferry	53,100	50,073	3,027			33	11,205
Harbor	21,268	18,750	2,518			24	10,020
Miscellaneous	54,949	46,760	8,189			52	22,460
7. Savannah.....	2,562,634	2,211,697	350,937	7	21.43	1,342	527,705
Passenger and freight.....	2,029,111	1,760,323	268,788	7	21.43	900	323,249
Towing	450,412	383,283	67,129			334	162,328
Ferry	53,054	45,002	8,052			50	23,234
Harbor	21,480	15,843	5,637			43	12,590
Miscellaneous	8,577	7,246	1,331			15	4,304
8. Mobile.....	979,715	833,226	146,489	11	32.73	1,246	392,542
Passenger and freight.....	647,882	542,089	105,813	11	32.73	945	240,997
Towing	331,833	291,157	40,676			301	151,545
9. New Orleans	2,224,114	1,701,696	522,418	70	42.83	1,047	410,839
Passenger and freight.....	1,685,854	1,231,311	454,543	70	42.83	500	172,796
Towing	80,540	65,830	14,710			94	36,967
Ferry	5,875	3,717	2,158			3	2,340
Harbor	8,460	6,500	1,960			18	4,590
Miscellaneous	443,385	394,338	49,047			432	194,146
10. Galveston	328,242	238,335	89,906	1	22.00	186	77,362
Passenger and freight.....	69,260	48,481	20,779	1	22.00	80	27,210
Towing	190,419	134,203	56,216			68	31,591
Harbor	64,400	52,102	12,298			32	16,081
Miscellaneous	4,163	3,550	613			6	1,880

SAILING VESSELS.

DISTRICTS.	Number.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total wages paid during year.
Total.....	7,108	1,401,085	\$46,284,507	227,699	50,228,500	39,801,533	\$33,113,416	\$24,474,085	\$8,639,331	16,309	\$21.03	33,097	\$8,838,774
1. Portland.....	1,078	460,589	13,878,422	29,842	6,469,900	4,731,379	9,858,812	7,306,627	2,552,185	7,157	21.48	12,573	2,570,903
Freight	1,523	430,981	12,919,607	29,842	6,469,900	4,731,379	9,846,292	7,297,317	2,548,975	7,157	21.48	12,550	2,567,183
Harbor	11	214	5,410				12,520	9,310	3,210			23	3,720
Yachts	31	418	35,690										
Miscellaneous (a)	3	47	850										
No traffic report.....	110	28,920	916,865										
2. Boston	977	314,820	9,947,225	25,614	7,529,580	7,260,053	7,109,820	5,294,011	1,815,809	2,811	21.10	5,123	1,719,704
Freight	655	285,700	8,273,500	25,614	7,529,580	7,260,053	7,023,668	5,230,381	1,793,287	2,811	21.10	5,025	1,698,494
Harbor	32	1,474	153,150				86,152	63,630	22,522			98	21,210
Yachts	175	4,122	740,405										
Miscellaneous (a)	1	46	1,500										
No traffic report.....	114	23,478	778,670										
3. New York.....	2,017	402,704	14,331,805	70,986	17,568,670	12,833,857	9,575,237	7,154,616	2,420,621	3,203	21.69	7,607	2,674,610
Freight	1,213	343,808	10,672,110	70,986	17,568,670	12,833,857	8,479,623	6,343,796	2,135,827	3,203	21.69	6,943	2,375,328
Harbor	226	11,038	672,850				1,095,614	810,820	284,794			664	299,282
Yachts	319	8,357	1,764,085										
Miscellaneous (a)	28	1,186	45,480										
No traffic report.....	231	38,255	1,177,280										
4. Philadelphia.....	705	147,649	5,038,200	15,486	4,395,490	4,927,123	4,390,852	3,049,203	1,341,649	1,496	20.78	3,145	939,557
Freight	563	138,404	4,576,940	15,486	4,395,490	4,927,123	4,359,155	3,027,063	1,332,092	1,496	20.78	3,108	932,157
Harbor	8	466	84,000				31,697	22,140	9,557			37	7,400
Yachts	56	926	102,040										
Miscellaneous (a)	10	1,135	20,800										
No traffic report.....	68	6,718	254,420										

a Number, tonnage, and valuation only reported.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—SUMMARY—Continued.

SAILING VESSELS—Continued.

DISTRICTS.	Number.	Tonnage.	Valuation.	Trips.	Miles.	Freight moved. (Tons.)	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total wages paid during year.
5. Baltimore.....	533	40,535	\$1,466,060	22,036	3,986,470	3,450,372	\$970,685	\$719,026	\$251,659	704	\$15.91	1,926	\$356,899
Freight	456	37,361	1,317,620	22,036	3,986,470	3,450,372	957,379	708,901	248,478	704	15.91	1,908	351,879
Harbor.....	4	218	11,700				13,306	10,125	3,181			18	5,020
Yachts.....	9	124	9,820										
Miscellaneous (a).....	1	19	1,500										
No traffic report.....	63	2,813	125,420										
6. Norfolk.....	286	10,007	413,760	10,920	2,547,200	2,704,717	184,295	136,686	47,609	119	16.98	578	102,180
Freight	187	6,802	253,980	10,920	2,547,200	2,704,717	160,184	119,436	40,748	119	16.98	536	89,240
Harbor.....	9	451	47,700				24,111	17,250	6,861			42	12,940
Yachts.....	2	25	1,250										
Miscellaneous (a).....	1	8	130										
No traffic report.....	87	2,721	110,700										
7. Savannah.....	299	8,432	420,925	23,636	4,379,720	2,433,097	284,284	228,794	55,490	282	15.01	733	141,920
Freight	185	6,164	244,180	23,636	4,379,720	2,433,097	192,266	154,209	38,057	282	15.01	569	97,140
Harbor.....	42	1,238	124,720				92,018	74,585	17,433			164	44,780
Yachts.....	9	118	6,500										
Miscellaneous (a).....	5	59	2,500										
No traffic report.....	58	853	43,025										
8. Mobile.....	243	9,671	429,160	10,426	1,500,970	651,176	318,221	247,052	71,169	250	21.45	566	137,781
Freight	156	5,674	245,160	10,426	1,500,970	651,176	275,387	213,632	61,755	250	21.45	500	119,456
Harbor.....	25	559	39,250				42,834	33,420	9,414			66	18,325
Yachts.....	10	94	8,350										
No traffic report.....	52	3,344	136,400										
9. New Orleans.....	214	4,247	194,360	10,864	1,009,230	595,967	260,585	211,215	49,370	262	22.68	547	132,080
Freight	168	3,557	159,420	10,864	1,009,230	595,967	254,655	206,420	48,235	262	22.68	538	129,220
Harbor.....	5	54	2,860				5,930	4,795	1,135			9	2,860
Yachts.....	3	30	2,250										
Miscellaneous (a).....	2	15	1,100										
No traffic report.....	36	582	28,730										
10. Galveston.....	156	3,331	164,590	7,889	841,210	213,792	160,625	126,855	33,770	115	22.12	299	63,140
Freight	123	1,851	115,110	7,889	841,210	213,792	151,569	119,700	31,869	115	22.12	280	59,560
Harbor.....	6	137	9,900				9,056	7,155	1,901			19	3,580
Yachts.....	14	205	11,065										
Miscellaneous (a).....	1	38	1,500										
No traffic report.....	12	1,100	27,015										

UNRIGGED CRAFT.

DISTRICTS.	Number.	Tonnage.	Valuation.	Freight moved. (Tons.)	Gross earnings.	Expenses.	Net earnings.	Number making ordinary crews.	Total wages paid during year.
Total	3,425	623,483	\$7,837,440	12,102,694	\$9,031,196	\$7,583,918	\$1,447,278	4,875	\$2,045,156
1. Portland.....	155	16,689	197,795	216,459	424,500	352,160	72,340	183	50,160
2. Boston.....	214	35,696	485,675	1,208,026	568,183	460,309	107,874	235	67,483
3. New York.....	1,812	360,109	5,283,670	9,408,113	6,879,966	5,861,843	1,018,123	3,438	1,007,706
4. Philadelphia.....	496	144,121	1,421,250	238,247	712,812	567,386	145,426	413	123,572
5. Baltimore.....	160	26,152	225,650	81,014	182,633	133,563	49,070	215	77,717
6. Norfolk.....	121	8,520	43,665	134,222	65,900	54,564	11,336	147	33,236
7. Savannah.....	292	17,474	128,025	726,653	102,958	82,759	20,199	131	46,006
8. Mobile.....	111	7,763	43,310	49,980	75,444	56,654	18,790	72	29,152
9. New Orleans.....	13	650	3,000	19,980	2,800	2,000	800	3	1,440
10. Galveston.....	51	6,309	55,400	20,000	16,000	12,680	3,320	38	8,662

a Number, tonnage, and valuation only reported.

FUEL ACCOUNT.

TABLE 23.—AMOUNT AND VALUE OF COAL AND WOOD USED ON ALL STEAMERS OF THE ATLANTIC COAST AND GULF OF MEXICO IN 1889.

DISTRICTS.	Total cost of fuel.	COAL.		WOOD.	
		Tons.	Cost.	Cords.	Cost.
Total	\$7,751,487	2,298,418	\$7,512,650	130,585	\$238,837
1. Portland	319,983	74,619	319,658	325	325
2. Boston	1,080,077	320,385	1,080,077		
3. New York	4,077,965	1,239,822	4,063,205	4,838	14,780
4. Philadelphia	821,575	301,548	821,125	600	450
5. Baltimore	497,030	170,839	497,030		
6. Norfolk	133,225	33,291	108,755	16,430	24,470
7. Savannah	335,835	65,502	258,196	33,799	77,639
8. Mobile	149,912	13,023	50,543	60,051	99,369
9. New Orleans	300,031	74,890	287,207	8,997	12,824
10. Galveston	35,854	4,490	26,854	5,545	9,000

COMPARATIVE STATISTICS.

TABLE 24.—STEAMERS IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUATION OF STEAMERS IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.				STATES AND YEARS.			
	Number.	Tonnage.	Valuation.		Number.	Tonnage.	Valuation.
Total	1880 2,195 1889 2,933	613,985.02 837,162.00	\$45,394,700 73,554,540	District of Columbia	1880 34 1889 42	6,945.77 8,939.00	\$595,000 654,000
Maine	1880 81 1889 127	16,018.21 26,522.00	1,078,300 2,463,750	Virginia	1880 89 1889 100	6,251.02 8,672.00	494,400 786,950
New Hampshire	1880 7 1889 8	267.79 396.00	30,600 47,400	North Carolina	1880 37 1889 66	3,720.16 5,562.00	185,800 445,600
Massachusetts	1880 162 1889 211	47,427.43 84,670.00	3,070,000 7,226,930	South Carolina	1880 41 1889 61	5,242.10 7,138.00	242,700 618,900
Rhode Island	1880 51 1889 64	20,046.39 23,620.00	1,393,150 1,806,200	Georgia	1880 44 1889 63	13,331.46 25,262.00	1,387,300 1,857,050
Connecticut	1880 90 1889 132	27,576.99 40,391.00	1,575,600 3,233,300	Florida	1880 70 1889 131	6,826.60 9,386.00	448,500 948,100
New York	1880 844 1889 1,161	276,777.38 391,172.00	20,792,150 36,495,410	Alabama	1880 43 1889 40	7,168.17 4,915.00	257,600 394,650
New Jersey	1880 163 1889 151	41,811.17 24,081.00	2,402,150 2,354,700	Mississippi	1880 1889 11		107,900
Pennsylvania	1880 203 1889 249	54,086.66 63,535.00	4,516,300 5,882,400	Louisiana	1880 18 1889 56	25,421.68 31,407.00	2,555,000 1,712,700
Delaware	1880 25 1889 38	5,877.97 14,757.00	302,300 1,599,500	Texas	1880 35 1889 38	4,351.91 2,771.00	196,900 281,000
Maryland	1880 158 1889 175	44,837.16 62,133.00	3,870,950 4,638,100				

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 25.—GROSS EARNINGS AND WAGES OF STEAMERS IN 1880 AND 1889—GROSS EARNINGS OF STEAMERS OPERATING IN 1880 AND 1889, AND AMOUNT PAID OUT IN WAGES DURING THOSE YEARS, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.		Gross earnings.		Paid in wages.		STATES AND YEARS.		Gross earnings.		Paid in wages.	
Total	1880	\$44,430,765	\$12,964,874			District of Columbia	1880	\$300,576	\$82,050		
	1889	48,003,020	11,239,169				1889	430,023	63,379		
Maine	1880	882,158	334,014			Virginia	1880	507,193	185,451		
	1889	1,786,352	432,888				1889	597,274	207,067		
New Hampshire	1880	19,290	6,500			North Carolina	1880	404,864	104,955		
	1889	39,055	11,872				1889	250,388	98,619		
Massachusetts	1880	3,127,512	897,923			South Carolina	1880	385,554	150,286		
	1889	6,387,850	1,039,708				1889	496,679	159,111		
Rhode Island	1880	1,293,396	517,123			Georgia	1880	1,084,430	320,727		
	1889	973,157	330,091				1889	1,532,375	279,535		
Connecticut	1880	2,017,650	693,663			Florida	1880	504,088	158,816		
	1889	2,813,969	662,961				1889	877,948	280,085		
New York	1880	22,231,958	5,775,013			Alabama	1880	437,465	251,220		
	1889	19,357,135	4,679,356				1889	491,279	164,086		
New Jersey	1880	2,611,048	833,891			Mississippi	1880				
	1889	1,664,984	453,020				1889	144,068	37,430		
Pennsylvania	1880	3,362,963	897,472			Louisiana	1880	1,654,843	506,405		
	1889	3,527,247	963,913				1889	2,224,114	410,839		
Delaware	1880	138,293	54,179			Texas	1880	335,756	163,051		
	1889	550,596	137,372				1889	328,242	77,362		
Maryland	1880	3,071,740	1,032,135								
	1889	3,530,285	749,875								

TABLE 26.—STEAMERS' CREWS AND WAGES IN 1880 AND 1889—NUMBER OF MEN CONSTITUTING ORDINARY CREWS EMPLOYED ON STEAMERS OPERATING IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, WAGES PAID, AND AVERAGES OF ANNUAL PAY AND INCREASE OR DECREASE PER MAN.

STATES AND YEARS.		Total number of men, ordinary crews.	Total wages paid.	Average annual wages per man.	Increase in annual average wages per man.	Decrease in annual average wages per man.	STATES AND YEARS.		Total number of men, ordinary crews.	Total wages paid.	Average annual wages per man.	Increase in annual average wages per man.	Decrease in annual average wages per man.
Total	1880	24,910	\$12,964,874	\$520.47			District of Columbia	1880	230	\$82,050	\$356.74		
	1889	25,653	11,239,169	438.12		\$82.35		1889	342	63,379	185.32		\$171.42
Maine	1880	688	334,014	485.40			Virginia	1880	479	185,451	387.16		
	1889	1,168	432,888	370.62		114.87		1889	573	207,067	362.42		24.74
New Hampshire	1880	17	6,500	382.35			North Carolina	1880	268	104,955	391.62		
	1889	25	11,872	474.88	\$92.53			1889	384	98,619	256.82		134.80
Massachusetts	1880	2,053	897,923	437.37			South Carolina	1880	328	150,286	458.19		
	1889	2,551	1,039,708	407.57		29.80		1889	423	159,111	376.15		82.04
Rhode Island	1880	811	517,123	637.64			Georgia	1880	481	320,727	666.79		
	1889	746	330,091	442.48		195.16		1889	659	279,535	424.18		242.61
Connecticut	1880	1,224	693,663	566.72			Florida	1880	548	158,816	289.81		
	1889	1,327	662,961	499.59		67.13		1889	738	280,085	379.52	\$89.71	
New York	1880	10,375	5,775,013	556.63			Alabama	1880	702	251,220	357.86		
	1889	9,141	4,679,356	511.91		44.72		1889	587	164,086	279.53		78.33
New Jersey	1880	1,243	833,891	670.87			Mississippi	1880					
	1889	881	453,020	514.21		156.66		1889	181	37,430	206.80		
Pennsylvania	1880	1,897	897,472	473.10			Louisiana	1880	514	506,405	985.22		
	1889	2,394	963,913	402.64		70.46		1889	1,047	410,839	392.40		592.82
Delaware	1880	219	54,179	247.39			Texas	1880	344	163,051	473.99		
	1889	367	137,372	374.31	126.92			1889	180	77,362	415.92		58.07
Maryland	1880	2,489	1,032,135	414.68									
	1889	1,933	749,875	387.93		26.75							

COMPARATIVE STATISTICS—Continued.

TABLE 27.—STEAMER TRAFFIC IN 1880 AND 1889—TONS OF FREIGHT MOVED AND PASSENGERS CARRIED BY STEAMERS IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	Freight in tons. (a)	PASSENGERS.			STATES AND YEARS.	Freight in tons. (a)	PASSENGERS.		
		Total.	Regular.	Ferry.			Total.	Regular.	Ferry.
Total.....1880	9,504,744	152,784,517	11,078,155	141,706,362	District of Columbia...1880	63,500	87,009	87,009	.....
.....1889	28,791,438	170,225,458	11,581,446	158,644,012	.....1889	103,600	625,543	324,552	300,991
Maine.....1880	239,498	529,622	319,918	209,704	Virginia.....1880	139,048	1,555,909	53,509	1,502,400
.....1889	1,153,379	1,384,148	960,379	423,769	.....1889	1,072,135	1,535,606	61,516	1,474,150
New Hampshire.....1880	.....	7,600	7,600	.....	North Carolina.....1880	189,219	29,421	29,421	.....
.....1889	24,220	108,225	8,225	100,000	.....1889	1,410,071	66,343	66,343	.....
Massachusetts.....1880	694,079	13,035,790	1,773,855	11,261,935	South Carolina.....1880	88,218	135,604	17,168	118,436
.....1889	2,891,148	17,147,560	1,659,528	15,488,032	.....1889	502,500	150,751	25,288	125,463
Rhode Island.....1880	416,939	831,078	796,078	35,000	Georgia.....1880	114,030	23,335	23,335	.....
.....1889	994,306	467,768	459,768	8,000	.....1889	1,858,000	76,976	67,111	9,865
Connecticut.....1880	854,610	973,268	450,018	523,250	Florida.....1880	76,728	39,220	39,220	.....
.....1889	1,941,500	966,461	653,709	312,752	.....1889	385,187	274,149	114,040	160,109
New York.....1880	3,270,839	93,298,059	3,962,950	89,335,109	Alabama.....1880	182,987	51,237	36,237	15,000
.....1889	11,043,500	128,848,933	4,991,352	123,857,581	.....1889	225,000	34,140	34,140	.....
New Jersey.....1880	519,063	39,984,813	2,356,535	37,628,278	Mississippi.....1880	.....	.....	.....	.....
.....1889	419,662	15,143,574	344,160	14,799,414	.....1889	86,500	2,605	2,605	.....
Pennsylvania.....1880	1,061,832	1,210,864	709,614	501,250	Louisiana.....1880	278,469	13,533	13,533	.....
.....1889	1,280,659	1,405,898	1,193,730	212,168	.....1889	568,259	73,777	18,944	54,833
Delaware.....1880	152,760	67,000	67,000	.....	Texas.....1880	168,372	4,603	4,603	.....
.....1889	339,880	98,949	98,949	.....	.....1889	488,632	5,988	5,988	.....
Maryland.....1880	993,953	906,552	330,552	576,000					
.....1889	1,997,300	1,808,004	491,119	1,316,885					

a Exclusive of freight carried by ferryboats.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO FOR THE 10 YEARS 1880-1889.

SUMMARY.

YEARS AND CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	175,255	26,792,836	26,020	7,349,172	141,505	17,859,237	7,721	1,584,427
1880.....	17,484	2,657,349	2,251	631,302	14,609	1,912,800	624	113,247
1881.....	17,589	2,652,319	2,364	644,204	14,576	1,884,739	649	123,376
1882.....	17,897	2,714,281	2,532	692,959	14,593	1,870,736	772	144,586
1883.....	17,856	2,770,017	2,584	730,308	14,500	1,889,438	772	150,271
1884.....	17,922	2,819,586	2,693	755,754	14,489	1,918,006	740	145,826
1885.....	17,771	2,781,791	2,671	773,444	14,354	1,860,058	746	148,289
1886.....	17,362	2,659,448	2,662	763,302	13,937	1,742,766	763	153,380
1887.....	17,029	2,595,307	2,680	773,823	13,652	1,665,070	697	156,414
1888.....	17,180	2,587,089	2,763	785,164	13,459	1,584,309	958	217,616
1889.....	17,165	2,555,649	2,829	798,912	13,336	1,525,315	1,000	231,422

1880

Total.....	17,484	2,657,349	2,251	631,302	14,609	1,912,800	624	113,247
Maine.....	2,643	508,729	85	16,975	2,558	491,348	2	406
Pasamaquoddy.....	197	23,510	11	4,707	186	18,803	.....	.....
Machias.....	176	19,355	4	165	172	19,190	.....	.....
Frenchman Bay.....	243	14,849	1	32	242	14,817	.....	.....
Castine.....	319	19,082	1	25	318	19,057	.....	.....
Bangor.....	174	26,686	7	557	167	26,129	.....	.....
Belfast.....	236	47,064	2	97	234	46,967	.....	.....
Waldoboro.....	421	84,017	9	891	411	82,871	1	255
Wiscasset.....	164	9,851	3	148	161	9,713	.....	.....
Bath.....	274	135,976	22	3,057	251	132,768	1	151
Portland and Falmouth.....	369	118,700	23	7,201	346	111,499	.....	.....
Saco.....	18	656	2	105	16	550	.....	.....
Kennebunk.....	43	8,673	.....	.....	43	8,673	.....	.....
York.....	9	311	.....	.....	9	311	.....	.....
New Hampshire:								
Portsmouth.....	74	9,688	5	206	69	9,482	.....	.....

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1880—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Massachusetts.....	2,299	430,182	152	48,687	2,136	378,333	11	3,163
Newburyport.....	66	13,188	13	773	51	12,328	2	87
Gloucester.....	476	28,195	4	73	472	28,122		
Salem and Beverly.....	68	6,651	4	811	64	5,840		
Marblehead.....	61	2,419			61	2,419		
Boston and Charlestown.....	808	264,263	89	26,381	719	237,882		
Plymouth.....	51	2,963	2	464	49	2,499		
Barnstable.....	340	80,156	1	90	339	80,066		
Nantucket.....	16	1,306	4	1,080	12	226		
Edgartown.....	24	1,540			24	1,540		
New Bedford.....	265	44,838	15	2,963	250	41,875		
Fall River.....	124	34,663	20	16,052	95	15,536	9	3,075
Rhode Island.....	300	41,106	59	24,518	241	16,588		
Providence.....	125	34,386	30	22,274	95	12,112		
Newport.....	144	5,271	21	1,968	123	3,303		
Bristol and Warren.....	31	1,449	8	276	23	1,173		
Connecticut.....	822	82,742	108	30,047	641	44,299	73	8,306
Stonington.....	124	7,803	9	1,163	115	6,640		
New London.....	200	22,232	37	13,334	163	8,898	3	289
Middletown.....	106	14,066	25	5,917	77	7,508	4	641
New Haven.....	226	28,178	25	6,462	137	14,556	64	7,160
Fairfield.....	166	10,463	12	3,171	152	6,986	2	306
New York.....	4,009	934,950	850	292,629	2,754	560,556	405	81,765
New York.....	3,721	918,057	824	290,674	2,495	548,187	402	79,196
Sag Harbor.....	288	16,893	26	1,955	259	12,369	3	2,509
New Jersey.....	1,087	87,556	113	17,743	906	58,123	68	11,690
Newark.....	64	5,316	27	2,808	37	2,508		
Perth Amboy.....	435	36,722	62	10,212	312	15,849	61	10,661
Little Egg Harbor.....	72	5,583	1	167	71	5,416		
Great Egg Harbor.....	127	14,859	2	36	125	14,823		
Bridgeton.....	314	16,153	3	149	311	16,004		
Burlington.....	75	8,923	18	4,371	50	3,523	7	1,029
Pennsylvania:								
Philadelphia.....	941	209,112	269	72,201	643	132,089	29	4,822
Delaware:								
Delaware.....	182	16,287	21	4,042	159	12,128	2	117
Maryland.....	1,788	121,021	139	38,742	1,645	81,856	4	423
Baltimore.....	1,013	102,139	138	38,723	871	62,993	4	423
Annapolis.....	118	2,262			118	2,262		
Eastern.....	657	16,620	1	19	656	16,601		
District of Columbia:								
Georgetown.....	91	8,771	33	6,851	58	1,920		
Virginia.....	1,150	33,555	86	6,716	1,061	26,640	3	199
Alexandria.....	99	3,945	12	754	87	3,191		
Tappahannock.....	102	2,669	2	251	100	2,418		
Yorktown.....	142	2,436			141	2,393	1	43
Richmond.....	39	4,657	16	966	21	3,515	2	156
Petersburg.....	3	47	2	31	1	16		
Norfolk and Portsmouth.....	407	14,521	54	4,694	353	9,827		
Cherrystone.....	358	5,280			358	5,280		
North Carolina.....	330	12,669	41	3,511	289	9,158		
Albemarle.....	76	2,773	21	1,835	55	938		
Pamlico.....	106	2,629	6	384	100	2,245		
Beaufort.....	70	1,096			70	1,096		
Wilmington.....	78	6,171	14	1,292	64	4,879		
South Carolina.....	223	11,482	49	6,414	173	5,017	1	51
Georgetown.....	19	1,002	14	613	5	389		
Charleston.....	182	9,712	31	5,586	151	4,126		
Beaufort.....	22	768	4	215	17	502	1	51
Georgia.....	119	21,118	33	11,764	86	9,354		
Savannah.....	72	14,310	18	10,504	54	3,806		
Brunswick.....	40	5,266	12	966	28	4,320		
St. Mary.....	7	1,522	3	294	4	1,228		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1880—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Florida.....	395	33,761	72	8,429	323	25,332		
Fernandina.....	18	4,038	1	24	17	4,914		
St. John.....	47	4,561	29	2,140	18	2,421		
St. Augustine.....	2	60	1	27	1	33		
Key West.....	152	7,082	11	3,243	141	3,839		
St. Mark.....	30	2,327	7	601	23	1,726		
Apalachicola.....	32	2,504	7	1,239	25	1,265		
Pensacola.....	114	12,289	16	1,155	98	11,134		
Alabama:								
Mobile.....	121	15,291	44	7,005	73	7,937	4	349
Mississippi:								
Pearl River.....	149	4,966	12	816	119	2,970	18	1,180
Louisiana.....	497	61,625	48	29,567	447	31,958	2	100
New Orleans.....	396	57,848	21	27,920	375	29,928		
Teche.....	101	3,777	27	1,647	72	2,030	2	100
Texas.....	264	12,738	32	4,439	230	7,712	2	587
Galveston.....	184	9,780	28	3,444	154	5,740	2	587
Saluria.....	37	838			37	838		
Corpus Christi.....	28	898			28	898		
Brazos de Santiago.....	15	1,222	4	995	11	227		

1881

Total.....	17,589	2,652,319	2,364	644,204	14,576	1,884,739	640	123,376
Maine.....	2,561	504,099	88	16,471	2,471	487,222	2	406
Passamaquoddy.....	190	22,383	11	4,707	179	17,676		
Machias.....	155	14,503	4	89	151	14,414		
Frenchman Bay.....	243	15,045	2	45	241	15,000		
Castine.....	311	18,870	1	25	310	18,845		
Bangor.....	160	25,368	8	539	152	24,829		
Belfast.....	230	46,024	2	97	228	45,927		
Waldoboro.....	403	83,915	8	1,008	394	82,652	1	255
Wiscasset.....	158	8,722	3	138	155	8,584		
Bath.....	272	140,543	25	3,019	246	137,373	1	151
Portland and Falmouth.....	369	118,235	22	6,699	347	111,536		
Saco.....	19	1,559	2	105	17	1,454		
Kennebunk.....	39	8,559			39	8,559		
York.....	12	373			12	373		
New Hampshire:								
Portsmouth.....	74	9,841	7	249	67	9,592		
Massachusetts.....	2,235	415,109	146	46,603	2,078	364,933	11	3,573
Newburyport.....	64	12,445	16	775	46	11,583	2	87
Gloucester.....	469	27,302	6	120	463	27,182		
Salem and Beverly.....	62	5,409	1	14	61	5,395		
Marblehead.....	53	1,791	1	16	52	1,775		
Boston and Charlestown.....	803	253,551	88	25,913	715	227,638		
Plymouth.....	47	2,444	1	325	46	2,119		
Barnstable.....	315	27,817			315	27,817		
Nantucket.....	16	1,349	8	1,070	13	279		
Edgartown.....	25	1,906	1	11	24	1,895		
New Bedford.....	256	43,231	11	2,308	245	40,923		
Fall River.....	125	37,864	18	16,051	98	18,327	9	3,480
Rhode Island.....	302	38,399	54	21,351	248	17,048		
Providence.....	131	31,727	27	19,491	104	12,236		
Newport.....	136	4,844	17	1,656	119	3,188		
Bristol and Warren.....	35	1,828	10	204	25	1,624		
Connecticut.....	828	87,142	108	30,379	635	44,878	85	11,885
Stonington.....	118	8,263	9	1,187	109	7,076		
New London.....	198	23,552	37	13,607	154	8,761	7	1,184
Middletown.....	105	15,404	21	5,668	70	6,799	14	2,937
New Haven.....	237	30,304	28	6,742	146	15,946	63	7,616
Fairfield.....	170	9,619	13	3,175	156	6,296	1	148
New York.....	4,095	934,860	925	305,741	2,759	545,282	411	83,837
New York.....	3,801	917,651	894	303,394	2,499	532,960	408	81,269
Sag Harbor.....	294	17,209	31	2,347	260	12,293	3	2,569

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1830-1839—Continued.

1831—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
New Jersey	1,126	96,150	123	18,751	923	61,592	80	15,807
Newark	58	4,485	30	2,977	28	1,508		
Perth Amboy	457	43,510	68	11,172	316	17,560	73	14,778
Little Egg Harbor	67	5,237	1	167	66	5,070		
Great Egg Harbor	135	16,548	4	65	131	16,483		
Bridgeton	338	17,694	3	149	335	17,545		
Burlington	71	8,676	17	4,221	47	3,426	7	1,029
Pennsylvania:								
Philadelphia	936	209,568	269	70,337	637	133,967	30	5,264
Delaware:								
Delaware	176	16,090	23	4,140	153	11,950		
Maryland	1,840	118,981	142	38,478	1,605	80,254	3	249
Baltimore	1,046	99,739	141	38,450	902	61,031	3	249
Annapolis	120	2,273			120	2,273		
Eastern	674	16,969	1	19	673	16,950		
District of Columbia:								
Georgetown	88	9,236	38	7,668	50	1,568		
Virginia	1,190	33,343	96	7,896	1,092	25,291	2	156
Alexandria	100	3,628	12	756	88	2,872		
Tappahannock	130	3,107	4	356	126	2,751		
Yorktown	135	1,904			135	1,994		
Richmond	57	5,955	18	2,031	37	3,768	2	156
Petersburg	4	264	3	74	1	190		
Norfolk and Portsmouth	426	13,326	59	4,679	367	8,647		
Cherrystone	338	5,069			338	5,069		
North Carolina	347	15,765	49	4,034	298	11,731		
Albemarle	79	3,093	28	2,139	51	954		
Pamlico	114	2,700	7	457	107	2,243		
Beaufort	65	1,050			65	1,059		
Wilmington	89	8,913	14	1,438	75	7,475		
South Carolina	222	11,737	44	6,496	178	5,241		
Georgetown	11	595	8	220	3	375		
Charleston	188	10,057	32	6,080	156	3,977		
Beaufort	23	1,085	4	196	19	889		
Georgia	131	26,427	36	16,029	95	10,398		
Savannah	81	19,409	20	14,542	61	4,867		
Brunswick	47	6,896	14	1,372	33	5,524		
St. Mary	3	122	2	115	1	7		
Florida	385	28,981	75	8,351	310	20,630		
Fernandina	20	4,316	3	408	17	3,968		
St. John	48	3,966	29	2,024	19	1,942		
St. Augustine	3	73	1	27	2	46		
Key West	143	5,610	9	2,222	134	3,388		
St. Mark	20	1,598	7	412	13	1,186		
Apalachicola	31	1,412	6	1,157	25	255		
Pensacola	120	12,006	20	2,101	100	9,905		
Alabama:								
Mobile	130	16,272	46	6,585	80	9,338	4	349
Mississippi:								
Pearl River	159	6,527	10	656	130	4,608	19	1,263
Louisiana	489	58,377	47	29,320	442	29,057		
New Orleans	399	55,085	21	27,920	378	27,165		
Teche	90	3,292	26	1,400	64	1,892		
Texas	275	15,415	38	4,669	235	10,150	2	587
Galveston	195	12,465	34	4,013	159	7,865	2	587
Saluria	31	772			31	772		
Corpus Christi	34	1,241			34	1,241		
Brazos de Santiago	15	837	4	656	11	281		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1882

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	17,897	2,714,281	2,532	692,959	14,593	1,876,736	772	144,586
Maine.....	2,590	525,449	93	16,657	2,494	507,819	3	973
Passamaquoddy.....	190	21,778	14	3,975	176	17,803		
Machias.....	166	14,400	4	75	162	14,325		
Frenchman Bay.....	244	14,552	4	75	240	14,457		
Castine.....	292	16,778			292	16,778		
Bangor.....	168	26,499	8	404	160	26,095		
Belfast.....	237	49,350	3	146	234	49,213		
Waldoboro.....	409	91,137	5	815	403	90,067	1	255
Wiscasset.....	149	8,040	2	84	147	7,956		
Bath.....	289	155,477	27	3,138	260	151,621	2	718
Portland and Falmouth.....	374	116,600	23	7,685	351	108,915		
Saco.....	21	1,884	3	260	18	1,624		
Kennebunk.....	39	8,614			39	8,614		
York.....	12	351			12	351		
New Hampshire:								
Portsmouth.....	65	9,045	7	254	58	8,791		
Massachusetts.....	2,252	429,092	160	50,921	2,081	374,598	11	3,573
Newburyport.....	61	11,637	15	741	44	10,809	2	87
Gloucester.....	478	27,850	5	165	473	27,685		
Salem and Beverly.....	54	5,291	3	44	61	5,247		
Marblehead.....	67	1,963	1	16	56	1,947		
Boston and Charlestown.....	835	266,964	102	29,842	733	237,122		
Plymouth.....	40	2,071	1	159	39	1,912		
Barnstable.....	322	30,171			322	30,171		
Nantucket.....	16	1,312	3	1,069	13	243		
Edgartown.....	23	1,439			23	1,439		
New Bedford.....	232	42,187	12	2,727	220	39,460		
Fall River.....	124	38,207	18	16,158	97	18,563	9	3,486
Rhode Island.....	309	44,240	54	24,340	255	19,903		
Providence.....	144	37,544	29	22,440	115	15,104		
Newport.....	129	4,637	16	1,613	113	3,044		
Bristol and Warren.....	36	2,039	9	287	27	1,752		
Connecticut.....	866	96,410	117	32,066	595	41,130	154	23,214
Stonington.....	110	8,223	11	1,329	99	6,894		
New London.....	185	25,914	36	15,912	139	7,960	10	2,063
Middletown.....	104	14,501	19	4,325	66	6,323	19	3,853
New Haven.....	291	38,550	33	7,048	134	14,322	124	17,189
Fairfield.....	176	9,222	18	3,452	157	5,622	1	148
New York.....	4,101	945,231	987	327,974	2,079	530,150	435	87,107
New York.....	3,830	928,058	954	325,427	2,444	518,693	432	84,538
Sag Harbor.....	271	16,573	33	2,547	235	11,457	3	2,569
New Jersey.....	1,194	161,466	135	20,237	953	60,025	106	21,204
Newark.....	62	4,981	35	3,450	27	1,531		
Perth Amboy.....	517	48,048	73	12,048	345	16,425	99	20,175
Little Egg Harbor.....	66	4,867	2	215	64	4,652		
Great Egg Harbor.....	139	16,652	3	48	136	16,604		
Bridgeton.....	340	17,759	3	149	337	17,610		
Burlington.....	70	8,559	19	4,327	44	3,203	7	1,029
Pennsylvania:								
Philadelphia.....	895	205,663	279	75,268	587	125,179	29	5,216
Delaware:								
Delaware.....	165	16,669	19	3,769	144	12,304	2	596
Maryland.....	1,922	125,176	153	47,626	1,766	77,301	3	249
Baltimore.....	1,090	104,475	150	47,318	937	56,908	3	249
Annapolis.....	120	2,273			120	2,273		
Eastern.....	712	18,428	3	308	709	18,120		
District of Columbia:								
Georgetown.....	87	10,568	38	8,278	49	2,290		
Virginia.....	1,261	37,311	107	8,545	1,152	28,610	2	156
Alexandria.....	87	3,654	12	699	75	2,955		
Tappahannock.....	140	3,230	5	279	135	2,951		
Yorktown.....	131	2,103			131	2,103		
Richmond.....	59	6,468	20	2,062	37	4,250	2	156
Petersburg.....	4	278	1	16	3	262		
Norfolk and Portsmouth.....	478	16,041	67	5,470	411	10,571		
Cherrystone.....	362	5,537	2	10	360	5,518		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1882—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
North Carolina.....	336	13,340	56	4,686	280	8,654		
Albemarle.....	74	2,860	27	1,990	47	861		
Pamlico.....	118	3,033	12	861	106	2,172		
Beaufort.....	67	1,158			67	1,158		
Wilmington.....	77	6,289	17	1,826	60	4,463		
South Carolina.....	228	10,696	46	4,993	182	5,703		
Georgetown.....	17	1,164	10	422	7	742		
Charleston.....	189	8,572	31	4,258	158	4,314		
Beaufort.....	22	960	5	313	17	647		
Georgia.....	120	20,684	38	16,708	82	9,976		
Savannah.....	76	20,732	22	15,826	54	4,906		
Brunswick.....	40	5,442	14	767	26	4,675		
St. Mary.....	4	510	2	115	2	395		
Florida.....	419	30,161	86	9,986	333	20,175		
Fernandina.....	19	3,853	2	322	17	3,531		
St. John.....	53	5,259	37	2,835	22	2,404		
St. Augustine.....	4	67			4	67		
Key West.....	153	6,462	11	2,902	142	3,500		
St. Mark.....	42	3,042	8	423	34	2,619		
Apalachicola.....	35	2,452	9	1,242	26	1,210		
Pensacola.....	107	9,026	19	2,182	88	6,844		
Alabama:								
Mobile.....	149	16,611	51	7,209	94	9,228	4	174
Mississippi:								
Pearl River.....	158	6,110	18	1,102	121	3,745	19	1,263
Louisiana.....	503	52,895	51	28,631	452	24,264		
New Orleans.....	411	49,941	24	27,442	387	22,499		
Teche.....	92	2,954	27	1,189	65	1,765		
Texas.....	277	11,464	37	3,709	236	6,894	4	861
Galveston.....	191	8,102	33	3,140	154	4,092	4	861
Saluria.....	29	732			29	732		
Corpus Christi.....	43	1,908	1	112	42	1,796		
Brazos de Santiago.....	14	722	3	448	11	274		

1883

Total.....	17,856	2,770,017	2,584	730,308	14,500	1,889,438	772	150,271
Maine.....	2,608	533,791	101	18,954	2,504	513,864	3	973
Passamaquoddy.....	192	20,291	13	3,216	179	17,075		
Machias.....	181	16,737	5	90	176	16,647		
Frenchman Bay.....	250	14,009	6	110	244	14,499		
Castine.....	270	16,195	1	25	269	16,170		
Bangor.....	168	25,659	9	717	159	24,942		
Belfast.....	245	48,465	4	157	241	48,308		
Waldoboro.....	408	93,709	4	793	403	92,916	1	255
Wiscasset.....	150	7,084	2	84	148	7,000		
Bath.....	296	165,795	28	4,634	268	160,443	2	718
Portland and Falmouth.....	381	117,120	25	8,825	356	108,295		
Saco.....	20	2,320	4	303	16	2,017		
Kennebunk.....	36	4,864			36	4,864		
York.....	11	343			11	343		
New Hampshire:								
Portsmouth.....	66	9,062	8	413	58	8,649		
Massachusetts.....	2,232	442,009	177	64,309	2,043	373,705	12	3,995
Newburyport.....	70	18,423	15	906	53	17,430	2	87
Gloucester.....	593	31,342	6	180	497	31,162		
Salem and Beverly.....	48	4,060	3	43	45	4,017		
Marblehead.....	48	2,540			48	2,540		
Boston and Charlestown.....	791	261,424	114	36,694	677	224,730		
Plymouth.....	45	2,701	1	344	44	2,357		
Harnstable.....	332	32,736	1	7	331	32,729		
Nantucket.....	17	1,376	2	1,062	15	314		
Edgartown.....	24	1,362			24	1,362		
New Bedford.....	233	41,228	13	2,786	220	38,442		
Fall River.....	121	44,817	23	22,287	98	18,622	10	3,908

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1883—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Rhode Island.....	282	42,012	49	23,707	233	18,305		
Providence.....	139	36,226	30	21,800	109	14,426		
Newport.....	110	4,562	13	1,722	97	2,840		
Bristol and Warren.....	33	1,224	6	185	27	1,039		
Connecticut.....	865	102,975	135	34,203	551	40,776	179	27,996
Stonington.....	90	6,455	12	1,326	87	5,129		
New London.....	187	28,726	41	16,425	129	8,289	17	4,012
Middletown.....	99	14,586	19	1,445	60	6,043	20	4,098
New Haven.....	312	43,535	42	7,731	130	16,144	140	19,660
Fairfield.....	168	9,673	21	4,276	145	5,171	2	226
New York.....	4,120	943,587	1,006	338,604	2,671	516,599	443	88,384
New York.....	3,870	928,333	978	336,327	2,451	505,560	441	86,446
Sag Harbor.....	250	15,254	28	2,277	220	11,039	2	1,938
New Jersey.....	1,193	99,519	127	17,982	977	63,156	80	21,381
Newark.....	70	6,002	32	3,358	38	2,614		
Perth Amboy.....	505	47,991	66	9,840	357	17,799	82	20,352
Little Egg Harbor.....	65	4,652	2	55	63	4,597		
Great Egg Harbor.....	127	14,530	3	182	124	14,348		
Bridgeton.....	354	17,714	4	181	350	17,533		
Burlington.....	72	8,630	20	4,366	45	3,235	7	1,029
Pennsylvania:								
Philadelphia.....	900	221,508	289	79,022	582	127,270	29	5,216
Delaware:								
Delaware.....	177	17,678	21	3,934	156	13,744		
Maryland.....	1,981	129,048	154	47,371	1,823	80,500	4	1,777
Baltimore.....	1,106	107,113	151	47,024	951	58,912	4	1,177
Annapolis.....	122	2,548	1	45	121	2,503		
Eastern.....	753	19,387	2	302	751	19,085		
District of Columbia:								
Georgetown.....	84	10,740	35	8,406	49	2,340		
Virginia.....	1,230	38,285	104	8,398	1,126	29,887		
Alexandria.....	84	3,525	12	481	72	3,044		
Tappahannock.....	120	3,137	3	170	117	2,967		
Yorktown.....	202	3,256	1	57	201	3,199		
Richmond.....	64	7,385	19	2,014	45	5,371		
Petersburg.....	5	175	4	162	1	13		
Norfolk and Portsmouth.....	410	15,447	63	5,495	347	9,952		
Cherrystone.....	345	5,360	2	19	343	5,341		
North Carolina.....	340	14,875	55	4,788	285	10,087		
Albemarle.....	64	2,746	25	2,129	39	617		
Pamlico.....	125	3,454	14	932	111	2,522		
Beaufort.....	73	1,247	1	33	72	1,214		
Wilmington.....	78	7,428	15	1,694	63	5,734		
South Carolina.....	219	13,457	45	6,259	174	7,198		
Georgetown.....	18	2,217	9	706	9	1,511		
Charleston.....	175	9,387	31	5,240	144	4,147		
Beaufort.....	26	1,853	5	313	21	1,540		
Georgia.....	120	34,560	42	21,525	78	13,035		
Savannah.....	79	25,756	31	20,685	48	5,071		
Brunswick.....	57	8,648	8	691	29	7,957		
St. Mary.....	4	156	3	149	1	7		
Florida.....	442	34,055	87	9,878	355	24,177		
Fernandina.....	16	3,167	2	322	14	2,845		
St. John.....	59	5,442	39	2,551	20	2,891		
St. Augustine.....	4	257			4	257		
Key West.....	154	6,864	12	3,495	142	3,369		
St. Mark.....	45	3,179	5	203	40	2,976		
Apalachicola.....	34	3,037	10	1,603	24	1,434		
Pensacola.....	130	12,109	19	1,704	111	10,405		
Alabama:								
Mobile.....	154	13,676	45	5,781	99	7,481	10	414
Mississippi:								
Pearl River.....	135	6,099	14	912	121	5,187		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1883—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Louisiana	434	52,403	54	32,554	380	19,849		
New Orleans	350	49,457	26	30,984	324	18,473		
Teche	84	2,946	28	1,570	56	1,376		
Texas	274	10,672	36	3,308	235	6,629	3	735
Galveston	197	8,313	31	2,702	163	4,876	3	735
Saluria	27	696			27	696		
Corpus Christi	38	972	2	158	36	814		
Brazos de Santiago	12	691	3	448	9	243		

1884

Total	17,922	2,819,586	2,693	755,754	14,489	1,918,006	740	145,826
Maine	2,578	543,432	114	22,965	2,462	519,749	2	718
Passamaquoddy	187	19,973	16	4,416	171	15,557		
Machias	194	20,952	7	160	187	20,792		
Frenchman Bay	236	14,704	5	125	231	14,579		
Castine	252	14,138	1	25	251	14,113		
Bangor	182	27,525	12	806	170	26,719		
Belfast	252	51,677	4	157	248	51,520		
Waldoboro	372	84,671	4	1,138	368	83,533		
Wiscasset	150	7,326			150	7,326		
Bath	299	173,749	32	4,409	265	168,631	2	718
Portland and Falmouth	387	119,900	30	11,507	357	108,393		
Saco	17	2,504	3	231	14	2,273		
Kennebunk	38	5,917			38	5,917		
York	12	396			12	396		
New Hampshire:								
Portsmouth	70	10,574	7	378	63	10,196		
Massachusetts	2,156	437,364	188	60,626	1,957	373,025	11	3,713
Newburyport	72	18,910	16	916	54	17,907	2	87
Gloucester	496	31,782	1	60	495	31,693		
Salem and Beverly	41	1,772	3	31	38	1,741		
Marblehead	42	2,777			42	2,777		
Boston and Charlestown	789	261,838	132	34,382	657	227,456		
Plymouth	45	2,408			45	2,408		
Barnstable	312	30,936			312	30,936		
Nantucket	19	1,537	2	1,062	17	1,475		
Edgartown	26	1,572			26	1,572		
New Bedford	208	36,979	12	2,320	196	34,659		
Fall River	106	46,873	22	21,846	75	21,401	9	3,626
Rhode Island	291	41,499	59	21,687	232	19,812		
Providence	142	34,304	37	19,889	105	14,415		
Bristol and Warren	34	1,891	7	218	27	1,673		
Newport	115	5,304	15	1,580	100	3,724		
Connecticut	861	109,198	152	35,617	538	46,720	171	26,861
Stonington	103	6,465	12	1,376	91	5,089		
New London	192	32,681	46	16,516	131	12,272	15	3,893
Middletown	97	14,332	19	4,269	59	6,274	19	3,789
New Haven	297	45,195	47	8,499	115	17,743	135	18,953
Fairfield	172	10,525	28	4,957	142	5,342	2	226
New York	4,236	978,371	1,072	363,751	2,709	523,123	455	91,497
New York	3,986	964,556	1,044	361,439	2,488	512,401	454	90,716
Sag Harbor	250	13,815	28	2,312	221	10,722	1	781
New Jersey	1,103	91,595	110	16,423	945	61,125	48	14,047
Newark	79	7,369	35	3,510	44	3,859		
Perth Amboy	385	36,706	48	8,178	289	14,481	48	14,047
Little Egg Harbor	60	4,396	1	48	59	4,348		
Great Egg Harbor	135	17,619	2	170	133	17,449		
Bridgeton	378	17,979	5	261	373	17,718		
Burlington	66	7,528	19	4,256	47	3,270		
Pennsylvania:								
Philadelphia	894	218,947	289	74,116	574	138,731	31	6,100
Delaware:								
Delaware	182	19,930	25	6,291	157	13,648		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1884—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Maryland	2,168	138,871	174	50,497	1,986	86,562	8	1,812
Baltimore	1,188	115,470	172	50,391	1,008	63,267	8	1,812
Annapolis	162	3,249			162	3,249		
Eastern	818	20,152	2	106	816	20,046		
District of Columbia:								
Georgetown	82	10,968	31	7,902	51	3,066		
Virginia	1,189	41,305	111	8,747	1,078	32,558		
Alexandria	88	5,952	14	560	74	5,390		
Tappahannock	130	3,243	2	92	128	3,151		
Richmond	65	7,908	20	2,091	45	5,817		
Petersburg	5	217	4	210	1	7		
Yorktown	219	4,058	3	178	216	3,880		
Norfolk and Portsmouth	397	15,335	66	5,591	331	9,744		
Cherrystone	285	4,592	2	10	283	4,573		
North Carolina	353	17,090	63	5,341	290	11,755		
Albemarle	67	2,786	25	2,140	42	646		
Pamlico	118	3,227	17	1,123	101	2,104		
Beaufort	86	1,614	2	152	84	1,462		
Wilmington	82	9,469	19	1,926	63	7,543		
South Carolina	221	12,043	50	6,550	171	5,493		
Georgetown	21	2,381	11	834	10	1,547		
Charleston	177	8,192	33	5,307	144	2,885		
Beaufort	23	1,470	6	409	17	1,061		
Georgia	131	39,250	44	23,246	87	16,004		
Savannah	77	27,777	31	22,279	46	5,498		
Brunswick	50	10,832	12	933	38	9,899		
St. Mary	4	641	1	34	3	607		
Florida	407	30,869	52	7,951	355	22,918		
Fernandina	17	3,725	2	355	15	3,370		
St. John	12	522			12	522		
St. Augustine	6	301			6	301		
Key West	151	5,997	12	3,317	139	2,680		
St. Mark	46	1,494	8	563	38	931		
Apalachicola	30	2,178	11	1,400	19	778		
Pensacola	145	16,652	19	2,316	126	14,336		
Alabama:								
Mobile	131	10,535	41	5,600	80	4,521	10	414
Mississippi:								
Pearl River	131	5,210	12	919	119	4,297		
Louisiana	471	51,712	60	33,517	411	18,195		
New Orleans	368	48,194	27	31,688	341	10,506		
Teche	103	3,518	33	1,829	70	1,689		
Texas	267	10,802	39	3,630	224	6,508	4	664
Galveston	186	8,144	33	2,954	151	4,749	2	441
Saluria	29	548			29	548		
Corpus Christi	36	1,134	2	158	32	753	2	223
Brazos de Santiago	16	976	4	518	12	458		

1885

Total	17,771	2,781,791	2,671	773,444	14,354	1,860,058	746	148,289
Maine	2,477	487,574	119	22,242	2,356	464,510	2	822
Passamaquoddy	180	18,830	18	4,169	162	14,661		
Machias	196	19,198	5	102	191	19,096		
Frenchman Bay	227	13,920	6	218	221	13,702		
Castine	251	14,483	1	25	250	14,458		
Bangor	167	23,680	12	780	155	22,891		
Belfast	255	47,748	4	157	251	47,591		
Waldoboro	349	76,586	4	1,138	344	75,185	1	255
Wiscasset	150	7,211	2	106	148	7,105		
Bath	260	145,374	28	3,530	231	141,277	1	567
Portland and Falmouth	379	114,387	36	11,777	343	102,610		
Saco	19	2,383	3	281	16	2,152		
Kennebunk	31	3,357			31	3,357		
York	13	415			13	415		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1885—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
New Hampshire:								
Portsmouth.....	66	10,891	7	389	59	10,502		
Massachusetts.....	2,068	442,837	156	68,941	1,902	370,925	10	2,971
Newburyport.....	63	17,162	15	906	46	16,169	2	87
Gloucester.....	510	33,943	6	209	504	33,734		
Salem and Beverly.....	38	1,952	2	39	36	1,913		
Marblehead.....	44	3,036	2	73	42	2,963		
Boston and Charlestown.....	723	267,805	96	42,170	627	225,635		
Plymouth.....	35	2,038	1	344	34	1,694		
Barnstable.....	305	29,609			305	29,609		
Nantucket.....	19	1,472	2	1,002	17	410		
Edgartown.....	23	1,235			23	1,235		
New Bedford.....	209	36,446	12	2,336	197	34,110		
Fall River.....	99	48,139	20	21,802	71	23,453	8	2,884
Rhode Island.....	270	39,786	44	21,209	226	18,577		
Providence.....	127	32,881	30	19,492	97	13,380		
Bristol and Warren.....	31	1,511	3	125	28	1,386		
Newport.....	112	5,394	11	1,592	101	3,802		
Connecticut.....	833	108,420	148	36,565	522	45,960	163	25,895
Stonington.....	109	6,069	11	2,256	98	4,413		
New London.....	176	31,881	38	16,221	123	11,821	15	3,839
Middletown.....	94	14,115	18	4,193	56	5,938	20	3,984
New Haven.....	284	44,491	48	8,565	110	18,080	126	17,846
Fairfield.....	170	11,264	33	5,330	135	5,708	2	226
New York.....	4,171	986,145	1,054	366,487	2,651	525,470	466	94,188
New York.....	3,930	971,485	1,028	364,170	2,437	513,008	465	93,407
Sag Harbor.....	241	14,660	26	2,317	214	11,562	1	781
New Jersey.....	1,077	89,133	105	13,688	924	61,491	48	13,954
Newark.....	66	5,349	35	3,303	31	2,046		
Perth Amboy.....	374	36,709	44	7,767	282	14,988	48	13,954
Little Egg Harbor.....	62	4,477	3	183	59	4,294		
Great Egg Harbor.....	133	17,904	4	446	129	17,458		
Bridgeton.....	399	21,087	7	828	392	20,259		
Burlington.....	43	3,007	12	1,161	31	2,446		
Pennsylvania:								
Philadelphia.....	842	216,435	277	77,414	533	132,328	32	6,693
Delaware:								
Delaware.....	186	19,946	26	5,099	160	14,847		
Maryland.....	2,280	146,839	173	53,370	2,098	91,261	9	2,208
Baltimore.....	1,262	123,493	170	53,195	1,083	68,090		
Annapolis.....	100	3,174	1	106	159	3,068		
Eastern.....	858	20,172	2	69	856	20,103		
District of Columbia:								
Georgetown.....	72	10,187	30	8,580	41	1,099	1	508
Virginia.....	1,236	45,788	101	8,346	1,135	37,442		
Alexandria.....	84	5,582	14	622	70	4,960		
Tappahannock.....	148	4,016	3	170	145	3,846		
Richmond.....	63	10,017	15	1,982	48	8,035		
Petersburg.....	6	229	4	210	2	19		
Yorktown.....	214	3,730	3	148	211	3,582		
Norfolk and Portsmouth.....	408	17,017	58	4,997	350	12,020		
Cherrystone.....	313	5,197	4	217	303	4,980		
North Carolina.....	350	14,906	62	4,739	288	10,167		
Albemarle.....	70	2,794	26	2,194	44	600		
Pamlico.....	118	2,885	16	912	102	1,973		
Beaufort.....	87	1,631	4	197	83	1,434		
Wilmington.....	75	7,596	16	1,436	59	6,160		
South Carolina.....	227	12,807	52	6,762	175	6,045		
Georgetown.....	23	2,679	12	853	11	1,826		
Charleston.....	183	9,419	34	5,506	149	3,919		
Beaufort.....	21	709	6	409	15	300		

ATLANTIC COAST AND GULF OF MEXICO.

63

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1885—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Georgia.....	133	35,831	51	24,024	82	11,807		
Savannah.....	88	27,161	36	22,652	52	4,509		
Brunswick.....	42	8,091	14	1,338	28	6,753		
St. Mary.....	3	579	1	34	2	545		
Florida.....	489	39,488	110	11,568	379	27,920		
Fernandina.....	17	3,591	3	389	14	3,202		
St. John.....	74	6,358	50	3,574	24	2,784		
St. Augustine.....	8	332	3	276	5	56		
Key West.....	154	7,402	15	3,658	139	3,744		
St. Mark.....	53	1,582	9	919	44	663		
Apalachicola.....	37	1,677	12	1,309	25	368		
Pensacola.....	146	18,546	18	1,443	128	17,103		
Alabama:								
Mobile.....	142	10,958	49	5,698	82	4,800	11	469
Mississippi:								
Pearl River.....	129	5,396	9	881	120	4,535		
Louisiana.....	471	49,804	62	34,165	409	15,639		
New Orleans.....	371	46,604	30	32,741	341	13,863		
Teche.....	100	3,200	32	1,424	68	1,776		
Texas.....	252	8,620	36	3,207	212	4,753	4	590
Galveston.....	180	6,804	31	2,865	147	3,572	2	367
Saluria.....	26	346			26	346		
Corpus Christi.....	33	998	2	158	29	617	2	223
Brazos de Santiago.....	13	472	3	274	10	198		

1886

Total.....	17,362	2,659,448	2,662	763,302	13,937	1,742,766	763	153,390
Maine.....	2,391	459,130	116	22,043	2,271	434,824	4	2,272
Passamaquoddy.....	173	18,252	11	3,510	162	14,742		
Machias.....	185	17,886	5	123	180	17,763		
Frenchman Bay.....	241	16,003	7	494	234	15,509		
Castine.....	224	13,079	3	65	221	13,024		
Bangor.....	161	21,435	12	842	149	20,593		
Helfaet.....	232	41,355	2	92	230	41,263		
Waldoboro.....	339	70,372	4	793	335	69,579		
Wiscasset.....	141	7,677	2	106	139	7,511		
Bath.....	259	141,913	27	3,502	222	138,130	4	2,272
Portland and Falmouth.....	365	105,306	39	12,280	326	93,026		
Saco.....	19	2,191	3	231	16	1,960		
Kennebunk.....	32	3,400	1	15	31	3,385		
York.....	10	330			10	330		
New Hampshire:								
Portsmouth.....	65	10,422	7	389	58	10,033		
Massachusetts.....	2,011	435,969	166	70,424	1,834	361,794	11	3,751
Newburyport.....	64	16,565	14	893	48	15,585	2	87
Gloucester.....	494	33,228	8	273	486	32,955		
Salem and Beverly.....	89	2,319	5	170	84	2,149		
Marblehead.....	40	2,860	1	11	39	2,855		
Boston and Charlestown.....	699	262,487	101	43,465	598	219,022		
Plymouth.....	31	1,700	1	344	30	1,356		
Barnstable.....	307	28,908	1	46	306	28,862		
Nantucket.....	16	1,041	1	578	15	463		
Edgartown.....	20	981			20	981		
New Bedford.....	202	35,028	14	2,836	188	33,092		
Fall River.....	99	49,946	20	21,808	79	24,474	9	3,684
Rhode Island.....	265	39,111	49	21,129	214	17,293	2	689
Providence.....	131	32,289	32	19,136	97	12,464	2	689
Bristol and Warren.....	30	1,454	3	125	27	1,329		
Newport.....	104	5,368	14	1,868	90	3,500		
Connecticut.....	818	109,659	153	36,400	504	47,418	161	25,841
Stonington.....	105	6,448	11	2,256	94	4,192		
New London.....	172	32,468	36	16,103	121	12,360	15	4,002
Middletown.....	95	14,088	18	3,887	56	6,068	21	4,133
New Haven.....	275	45,331	48	8,544	103	19,339	124	17,558
Fairfield.....	171	11,624	40	5,807	130	5,808	1	148

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1886—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
New York.....	3,988	912,396	1,057	357,364	2,454	459,990	477	95,042
New York.....	3,756	898,475	1,030	354,991	2,250	449,223	476	94,261
Sag Harbor.....	232	13,921	27	2,373	204	10,767	1	781
New Jersey.....	1,107	87,738	99	13,380	958	59,949	50	14,409
Newark.....	71	8,768	34	3,634	37	3,134		
Perth Amboy.....	376	36,197	40	7,298	286	14,490	50	14,409
Little Egg Harbor.....	53	4,127	3	177	50	3,950		
Great Egg Harbor.....	133	16,788	6	461	127	16,327		
Bridgeton.....	431	20,280	5	679	426	19,601		
Burlington.....	43	3,578	11	1,131	32	2,447		
Pennsylvania:								
Philadelphia.....	825	225,300	266	74,837	526	143,162	33	7,301
Delaware:								
Delaware.....	175	16,731	26	4,061	149	12,670		
Maryland.....	2,233	144,882	170	54,434	2,054	88,240	9	2,208
Baltimore.....	1,232	122,329	165	54,120	1,058	66,001	9	2,208
Annapolis.....	130	2,938	1	106	129	2,832		
Eastern.....	871	19,615	4	208	867	19,407		
District of Columbia:								
Georgetown.....	67	10,081	31	8,636	35	937	1	508
Virginia.....	1,264	42,257	97	7,815	1,167	34,442		
Alexandria.....	76	4,904	10	447	66	4,457		
Tappahannock.....	146	4,053	3	170	143	3,883		
Richmond.....	58	6,641	16	1,027	42	5,614		
Petersburg.....	8	255	4	210	4	45		
Yorktown.....	213	4,289	4	820	209	2,469		
Norfolk and Portsmouth.....	425	16,377	58	5,005	367	11,372		
Cherrystone.....	338	5,738	2	136	336	5,602		
North Carolina.....	331	12,690	58	4,415	273	8,275		
Albemarle.....	71	2,883	27	2,305	44	578		
Pamlico.....	114	2,847	16	919	98	1,928		
Beaufort.....	87	1,597	2	99	85	1,498		
Wilmington.....	59	5,363	13	1,092	46	4,271		
South Carolina.....	206	11,625	49	6,229	157	5,396		
Georgetown.....	22	1,939	14	972	8	967		
Charleston.....	160	8,237	26	4,637	134	3,600		
Beaufort.....	24	1,440	9	620	15	829		
Georgia.....	131	32,463	49	23,827	82	8,636		
Savannah.....	90	25,580	34	22,455	56	3,125		
Brunswick.....	37	5,966	14	1,338	23	4,628		
St. Mary.....	4	917	1	34	3	883		
Florida.....	491	33,711	115	12,430	376	21,281		
Fernandina.....	15	3,709	3	389	12	2,620		
St. John.....	75	6,193	52	4,258	23	1,925		
St. Augustine.....	8	332	3	276	5	56		
Key West.....	173	7,851	17	4,005	156	3,846		
St. Mark.....	48	1,125	10	722	38	403		
Apalachicola.....	39	1,852	11	1,242	28	610		
Pensacola.....	133	13,049	19	1,538	114	11,511		
Alabama:								
Mobile.....	132	10,983	49	5,824	75	4,833	8	326
Mississippi:								
Pearl River.....	151	5,953	9	861	142	5,092		
Louisiana.....	453	45,680	57	32,913	396	12,767		
New Orleans.....	352	42,981	27	31,567	325	11,414		
Teche.....	101	2,699	30	1,346	71	1,353		
Texas.....	258	12,658	39	5,891	212	5,734	7	1,033
Galveston.....	190	10,604	34	5,459	151	4,335	5	810
Saluria.....	23	303			23	303		
Corpus Christi.....	33	1,302	2	158	29	921	2	223
Brazos de Santiago.....	12	449	3	274	9	175		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1887

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	17,029	2,595,307	2,680	773,823	13,652	1,665,070	697	156,414
Maine.....	2,247	416,381	112	19,938	2,127	392,025	8	4,418
Passamaquoddy.....	161	17,802	13	4,647	148	13,155		
Machias.....	181	16,006	4	89	176	16,395	1	122
Frenchman Bay.....	230	13,743	8	521	222	13,222		
Castine.....	233	12,788	2	30	231	12,738		
Bangor.....	157	21,587	11	726	145	20,623	1	238
Belfast.....	187	33,491	2	67	185	33,424		
Waldoboro.....	341	70,416	5	819	336	69,597		
Wiscasset.....	180	8,317	1	50	129	8,267		
Bath.....	248	132,080	26	3,470	216	124,552	6	4,058
Portland and Falmouth.....	323	84,514	37	9,306	286	75,208		
Saco.....	17	1,597	2	198	15	1,399		
Kennebunk.....	30	3,157	1	15	29	3,142		
York.....	9	303			9	303		
New Hampshire:								
Portsmouth.....	65	10,436	7	389	58	10,047		
Massachusetts.....	1,887	420,897	154	70,964	1,718	341,769	15	8,164
Newburyport.....	38	13,153	11	801	25	12,265	2	87
Gloucester.....	479	32,568	7	246	472	32,322		
Salem and Beverly.....	51	4,757	6	182	45	4,575		
Marblehead.....	35	2,353	2	49	33	2,304		
Boston and Charlestown.....	628	249,864	92	43,014	532	202,488	4	4,362
Plymouth.....	25	1,553	1	344	24	1,209		
Barnstable.....	297	27,881	1	46	296	27,835		
Nantucket.....	15	458			15	458		
Edgartown.....	20	986			20	986		
New Bedford.....	198	36,379	16	4,005	182	32,374		
Fall River.....	101	50,945	18	22,277	74	24,953	9	3,715
Rhode Island.....	242	36,906	50	20,384	189	15,476	3	1,046
Providence.....	109	29,493	29	17,848	77	10,599	3	1,046
Bristol and Warren.....	27	1,368	3	125	24	1,243		
Newport.....	106	6,045	18	2,411	88	3,634		
Connecticut.....	682	95,902	156	37,475	488	49,368	38	9,059
Stonington.....	106	5,512	10	1,268	96	4,244		
New London.....	178	36,034	37	17,567	124	13,565	17	4,902
Hartford.....	85	12,623	21	3,962	45	4,801	19	3,860
New Haven.....	146	30,266	48	8,706	98	21,560		
Fairfield.....	167	11,467	40	5,972	125	5,198	2	297
New York.....	4,033	928,226	1,077	371,270	2,441	453,686	515	103,270
New York.....	3,793	913,575	1,049	368,246	2,230	442,840	514	102,489
Sag Harbor.....	240	14,651	28	3,024	211	10,846	1	781
New Jersey.....	1,098	89,378	102	13,614	942	59,358	54	16,406
Newark.....	73	6,666	34	3,761	39	2,905		
Perth Amboy.....	375	38,973	42	7,302	279	15,265	54	16,406
Little Egg Harbor.....	48	3,947	1	42	47	3,905		
Great Egg Harbor.....	139	17,324	7	537	132	16,787		
Bridgeton.....	427	19,710	6	809	421	18,901		
Burlington.....	36	2,758	12	1,163	24	1,595		
Pennsylvania:								
Philadelphia.....	827	215,450	209	77,070	524	129,867	34	8,513
Delaware:								
Delaware.....	188	16,362	27	3,547	161	12,835		
Maryland.....	2,227	140,683	162	53,828	2,056	84,648	9	2,207
Baltimore.....	1,200	118,192	157	53,468	1,034	62,517	9	2,207
Annapolis.....	149	3,215	1	106	148	3,109		
Eastern.....	878	19,276	4	254	874	19,022		
District of Columbia:								
Georgetown.....	77	11,097	34	9,054	41	1,301	2	742
Virginia.....	1,289	44,520	99	8,270	1,189	35,435	1	815
Alexandria.....	66	3,568	10	428	56	3,140		
Tappahannock.....	145	3,912	5	304	140	3,608		
Richmond.....	62	6,043	15	1,198	47	4,845		
Petersburg.....	6	195	3	165	3	30		
Yorktown.....	224	7,534	4	812	219	5,907	1	815
Norfolk and Portsmouth.....	438	17,376	59	5,167	379	12,209		
Cherrystone.....	348	5,892	3	196	345	5,696		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1887—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
North Carolina.....	348	12,739	63	4,630	285	8,109		
Albemarle.....	77	2,998	27	2,302	50	696		
Pamlico.....	118	3,103	19	1,187	99	1,916		
Beaufort.....	101	1,845	2	100	99	1,745		
Wilmington.....	52	4,793	15	1,041	37	3,752		
South Carolina.....	216	12,537	56	6,677	160	5,860		
Georgetown.....	21	2,063	12	880	9	1,203		
Charleston.....	174	9,522	33	5,074	141	4,448		
Beaufort.....	21	952	11	743	10	209		
Georgia.....	135	32,551	50	23,403	85	9,148		
Savannah.....	89	23,806	32	21,687	57	2,119		
Brunswick.....	43	8,106	17	1,682	26	6,484		
St. Mary.....	3	579	1	34	2	545		
Florida.....	505	37,388	108	12,239	396	25,117	1	32
Fernandina.....	14	3,586	1	67	13	3,519		
St. John.....	60	7,309	41	4,812	19	2,497		
St. Augustine.....	11	405	3	272	8	133		
Key West.....	186	7,123	19	3,553	167	3,570		
St. Mark.....	47	1,370	10	734	36	604	1	32
Apalachicola.....	40	3,653	12	1,389	28	2,264		
Pensacola.....	147	13,942	22	1,412	125	12,530		
Alabama:								
Mobile.....	125	9,824	53	6,150	63	3,136	9	538
Mississippi:								
Pearl River.....	156	9,511	8	814	148	8,697		
Louisiana.....	444	43,024	55	30,449	389	12,575		
New Orleans.....	337	40,242	23	29,009	314	11,233		
Teche.....	107	2,782	32	1,440	75	1,342		
Texas.....	238	11,475	38	3,658	192	6,613	8	1,204
Galveston.....	184	9,196	31	2,801	147	5,414	6	981
Saluria.....	15	212			15	212		
Corpus Christi.....	28	1,224	2	158	24	843	2	223
Brazos de Santiago.....	9	418	3	274	6	144		
Paso del Norte.....	2	425	2	425				

1888

Total.....	17,180	2,587,089	2,763	785,164	13,459	1,584,309	958	217,616
Maine.....	2,221	409,664	120	22,931	2,088	376,441	13	10,292
Passamaquoddy.....	173	19,947	14	5,040	159	14,907		
Machias.....	190	16,389	5	106	185	16,283		
Frenchman Bay.....	232	14,506	13	740	219	13,766		
Castine.....	242	13,612	2	30	240	13,582		
Bangor.....	144	21,281	10	736	133	20,307	1	238
Belfast.....	170	31,321	2	84	168	31,237		
Waldoboro.....	344	61,220	6	1,006	338	60,214		
Wiscasset.....	116	7,074	2	229	114	6,845		
Bath.....	255	139,856	27	4,165	216	125,637	12	10,054
Portland and Falmouth.....	303	79,865	36	10,571	267	69,294		
Saco.....	16	1,277	2	188	14	1,079		
Kennebunk.....	27	2,961	1	26	26	2,955		
York.....	9	335			9	335		
New Hampshire:								
Portsmouth.....	65	10,149	9	418	56	9,731		
Massachusetts.....	1,887	433,133	166	77,055	1,695	337,101	26	18,977
Newburyport.....	39	12,642	12	784	25	11,771	2	87
Gloucester.....	469	32,828	8	311	460	32,395	1	122
Salem and Beverly.....	44	4,291	6	181	38	4,110		
Marblehead.....	33	2,966	2	57	31	2,909		
Boston and Charlestown.....	667	265,050	102	48,326	551	261,671	14	15,053
Plymouth.....	20	1,300	1	344	19	956		
Barnstable.....	282	24,752	1	46	281	24,706		
Nantucket.....	19	488			19	488		
Edgartown.....	31	935			31	935		
New Bedford.....	185	34,817	13	3,805	172	31,012		
Fall River.....	98	53,064	21	23,201	68	26,148	9	3,715

ATLANTIC COAST AND GULF OF MEXICO.

67

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1888—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Rhode Island.....	246	36,728	54	20,534	189	15,148	3	1,046
Providence.....	108	28,705	30	17,900	75	9,750	3	1,046
Bristol and Warren.....	28	1,415	4	135	24	1,280		
Newport.....	110	6,608	20	2,499	90	4,109		
Connecticut.....	812	119,753	166	38,732	483	54,212	163	26,809
Stonington.....	109	5,482	7	1,070	102	4,412		
New London.....	177	38,131	40	17,866	119	15,058	18	5,207
Hartford.....	82	12,071	22	4,123	40	3,744	20	4,204
New Haven.....	277	51,613	53	9,514	103	25,271	121	16,828
Fairfield.....	167	12,456	44	6,159	119	5,727	4	570
New York.....	4,050	908,475	1,100	372,743	2,329	409,455	621	126,277
New York.....	3,806	895,481	1,074	369,794	2,112	400,191	620	125,496
Sag Harbor.....	244	12,994	26	2,949	217	9,264	1	781
New Jersey.....	1,141	91,857	99	13,048	979	58,346	63	20,463
Newark.....	68	6,512	34	3,755	34	2,757		
Perth Amboy.....	398	42,190	42	7,215	293	14,512	63	20,463
Little Egg Harbor.....	43	2,993			43	2,993		
Great Egg Harbor.....	158	17,780	7	553	151	17,227		
Bridgeton.....	438	19,536	4	395	434	19,141		
Burlington.....	36	2,846	12	1,130	24	1,716		
Pennsylvania:								
Philadelphia.....	706	206,908	264	74,208	501	125,316	31	7,384
Delaware:								
Delaware.....	202	17,616	30	4,207	172	13,409		
Maryland.....	2,167	141,432	162	55,767	1,988	82,424	17	3,241
Baltimore.....	1,172	120,100	158	55,513	997	61,346	17	3,241
Annapolis.....	144	3,115			144	3,115		
Eastern.....	851	18,217	4	254	847	17,063		
District of Columbia:								
Georgetown.....	83	10,974	36	8,691	47	2,283		
Virginia.....	1,307	41,190	99	8,137	1,207	32,982	1	71
Alexandria.....	72	4,320	10	428	62	3,892		
Tappahannock.....	140	3,804	5	304	134	3,429	1	71
Richmond.....	66	6,776	16	1,304	50	5,472		
Petersburg.....	5	67	2	37	3	30		
Yorktown.....	222	6,517	3	785	219	5,732		
Norfolk and Portsmouth.....	444	13,641	59	5,021	385	8,620		
Cherrystone.....	358	6,065	4	258	354	5,807		
North Carolina.....	370	13,204	72	5,187	298	8,017		
Albemarle.....	82	3,143	31	2,461	51	682		
Pamlico.....	126	3,294	21	1,266	105	2,028		
Beaufort.....	109	1,904	3	154	106	1,750		
Wilmington.....	53	4,868	17	1,306	36	3,557		
South Carolina.....	220	11,472	57	6,703	163	4,769		
Georgetown.....	24	2,674	13	974	11	1,700		
Charleston.....	168	7,719	33	5,006	135	2,713		
Beaufort.....	28	1,079	11	723	17	356		
Georgia.....	135	31,732	53	23,633	80	6,922	2	1,177
Savannah.....	90	25,217	34	21,458	54	2,582	2	1,177
Brunswick.....	42	6,163	18	2,141	24	4,022		
St. Mary.....	3	352	1	34	2	318		
Florida.....	528	32,319	122	12,282	406	20,037		
Fernandina.....	15	4,042	1	67	14	3,975		
St. John.....	71	6,943	47	5,204	24	1,739		
St. Augustine.....	20	578	8	391	12	187		
Key West.....	195	7,155	22	3,269	173	3,886		
St. Mark.....	42	1,042	8	403	34	630		
Apalachicola.....	42	3,632	15	1,633	27	1,999		
Pensacola.....	143	8,927	21	1,315	122	7,612		
Alabama:								
Mobile.....	129	10,119	50	5,712	70	3,869	9	538
Mississippi:								
Pearl River.....	157	7,549	7	684	150	6,865		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1888—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Louisiana	435	42,955	58	31,062	377	11,893		
New Orleans.....	325	39,535	23	28,865	302	10,670		
Teche.....	110	3,420	35	2,197	75	1,223		
Texas	220	9,860	89	3,430	181	5,089	9	1,341
Galveston.....	180	7,958	82	2,573	142	4,404	6	981
Saluria.....	13	195			13	195		
Corpus Christi.....	26	763	2	158	22	382	2	223
Brazos de Santiago.....	7	382	3	274	4	108		
Paso del Norte.....	3	562	2	425			1	137

1889

Total.....	17,165	2,555,649	2,829	798,912	13,336	1,525,315	1,000	231,422
Maine.....	2,103	376,010	123	24,208	1,968	341,693	12	10,109
Passamaquoddy.....	157	19,356	13	4,811	144	14,545		
Machias.....	194	16,620	5	109	189	16,511		
Frenchman Bay.....	226	14,763	12	721	214	14,042		
Castine.....	252	13,666	3	78	249	13,588		
Bangor.....	148	23,896	13	1,102	134	22,555	1	238
Belfast.....	148	25,468	1	35	147	25,433		
Waldoboro.....	316	50,987	6	848	310	50,139		
Wiscasset.....	97	6,228	1	50	96	6,178		
Bath.....	224	117,415	30	5,724	183	101,820	11	9,871
Portland and Falmouth.....	301	83,699	36	10,506	265	73,193		
Saco.....	11	841	2	198	9	643		
Kennebunk.....	24	2,664	1	26	23	2,838		
York.....	5	208			5	208		
New Hampshire:								
Portsmouth.....	63	10,057	8	400	55	9,657		
Massachusetts.....	1,828	411,244	174	80,527	1,621	306,749	33	23,968
Newburyport.....	28	9,091	9	468	17	8,536	2	87
Gloucester.....	462	33,714	8	311	453	33,281	1	122
Salem and Beverly.....	36	2,663	4	103	32	2,560		
Marblehead.....	28	2,194	3	72	25	2,122		
Boston and Charlestown.....	675	257,051	113	50,533	542	186,908	20	10,610
Plymouth.....	19	1,370	1	344	18	1,026		
Barnstable.....	275	21,617	2	114	273	21,503		
Nantucket.....	20	435			20	435		
Edgartown.....	34	1,325	1	16	33	1,309		
New Bedford.....	162	31,349	12	4,123	150	27,226		
Fall River.....	89	50,435	21	24,443	58	21,843	10	4,149
Rhode Island.....	253	39,996	60	24,489	190	14,461	3	1,046
Providence.....	108	31,263	33	21,627	72	8,590	3	1,046
Bristol and Warren.....	27	1,312	5	171	22	1,141		
Newport.....	118	7,421	22	2,691	96	4,730		
Connecticut.....	796	119,303	168	38,076	457	52,277	171	28,950
Stonington.....	111	5,206	8	736	102	3,988	1	482
New London.....	172	38,907	38	17,629	114	15,607	20	5,571
Hartford.....	81	11,313	20	3,505	39	3,465	22	4,343
New Haven.....	268	56,445	52	8,510	92	23,951	124	17,964
Fairfield.....	164	13,532	50	7,096	110	5,266	4	570
New York.....	4,092	936,508	1,099	375,626	2,361	430,645	632	130,237
New York.....	3,874	925,015	1,076	372,896	2,187	422,684	631	129,455
Sag Harbor.....	218	11,493	23	2,730	194	7,961	1	782
New Jersey.....	1,172	92,623	104	13,124	997	57,547	71	21,952
Newark.....	70	6,380	36	3,486	34	2,894		
Perth Amboy.....	423	44,331	46	7,841	307	14,688	70	21,892
Little Egg Harbor.....	43	2,731	1	52	42	2,679		
Great Egg Harbor.....	169	18,123	4	286	165	17,837		
Bridgeton.....	429	18,162	4	395	423	17,767		
Burlington.....	38	2,896	13	1,064	24	1,682	1	150
Pennsylvania:								
Philadelphia.....	800	203,027	270	73,195	484	118,695	46	11,137
Delaware:								
Delaware.....	195	19,110	31	3,968	164	15,142		

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS 1880-1889—Continued.

1880—Continued.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Maryland.....	2,195	136,747	169	57,665	2,010	76,744	16	2,338
Baltimore.....	1,163	114,037	163	57,221	990	55,425	10	1,391
Annapolis.....	154	3,309			154	3,309		
Eastern.....	878	19,401	6	444	866	18,010	6	947
District of Columbia:								
Georgetown.....	108	11,741	37	8,745	71	2,996		
Virginia.....	1,329	42,798	116	10,028	1,212	32,699	1	71
Alexandria.....	74	2,069	11	495	63	1,574		
Tappahannock.....	145	3,995	5	304	139	3,620	1	71
Richmond.....	64	5,095	17	1,193	47	3,902		
Petersburg.....	5	67	2	37	3	30		
Yorktown.....	213	6,286	4	1,185	209	5,091		
Norfolk and Portsmouth.....	466	18,976	70	6,068	396	12,878		
Cherrystone.....	362	6,310	7	706	355	5,604		
North Carolina.....	398	12,951	78	5,539	320	7,412		
Albemarle.....	91	3,321	33	2,451	58	870		
Pamlico.....	132	3,385	23	1,424	109	1,961		
Beaufort.....	124	2,166	3	154	121	2,012		
Wilmington.....	51	4,079	19	1,510	32	2,569		
South Carolina.....	228	12,148	59	6,914	169	5,234		
Georgetown.....	24	2,367	14	1,017	10	1,350		
Charleston.....	174	8,378	34	5,222	140	3,156		
Beaufort.....	30	1,403	11	675	19	728		
Georgia.....	145	32,344	61	25,723	83	6,612	1	9
Savannah.....	93	24,188	34	22,018	58	2,161	1	9
Brunswick.....	49	8,081	25	3,653	24	4,428		
St. Mary.....	3	75	2	52	1	23		
Florida.....	522	27,618	122	9,986	400	17,632		
Fernandina.....	14	3,120	2	181	12	2,939		
St. John.....	72	5,939	45	4,085	27	1,854		
St. Augustine.....	23	447	8	184	15	253		
Key West.....	155	4,172	9	1,667	146	2,505		
Tampa.....	37	929	12	693	25	236		
St. Mark.....	34	715	8	372	26	343		
Apalachicola.....	40	3,015	15	1,383	25	1,632		
Pensacola.....	147	9,281	23	1,411	124	7,870		
Alabama:								
Mobile.....	130	10,312	47	4,913	77	4,086	6	413
Mississippi:								
Pearl River.....	170	11,140	12	1,872	158	9,268		
Louisiana.....	409	40,695	49	30,330	360	10,365		
New Orleans.....	308	37,623	21	28,454	287	9,169		
Teche.....	101	3,072	28	1,876	73	1,196		
Texas.....	229	9,277	42	3,584	179	4,501	8	1,192
Galveston.....	178	7,361	35	2,728	138	3,800	5	833
Saluria.....	11	183			11	183		
Corpus Christi.....	29	768	2	158	25	387	2	223
Brazos de Santiago.....	8	405	3	274	5	131		
Paso del Norte.....	3	560	2	424			1	136

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total.....	17,484	2,657,349	152	17,589	2,652,319	151	17,897	2,714,281	152	17,856	2,770,017	155	17,922	2,819,586	157
Maine.....	2,643	508,729	192	2,561	504,090	197	2,590	525,449	203	2,608	533,791	205	2,578	543,432	211
Passamaquoddy.....	197	23,510	119	190	22,383	118	190	21,778	115	192	20,291	106	187	19,973	107
Machias.....	176	19,355	110	155	14,503	94	166	14,400	87	181	16,737	92	194	20,952	108
Frenchman Bay.....	243	14,849	61	243	15,045	62	244	14,532	60	250	14,609	58	236	14,704	63
Castine.....	319	19,082	60	311	18,870	61	292	16,778	57	270	16,195	60	252	14,138	56
Bangor.....	174	26,686	153	160	25,368	159	168	26,499	158	168	25,659	153	182	27,525	151
Belfast.....	236	47,064	199	230	46,024	200	237	49,350	208	245	48,465	198	252	51,677	205
Waldoboro.....	421	84,017	200	403	83,915	208	409	91,137	223	408	93,709	230	372	84,671	228
Wiscasset.....	164	9,851	60	158	8,722	55	149	8,040	54	150	7,684	51	150	7,326	49
Bath.....	274	135,976	496	272	140,543	517	289	155,477	538	296	165,795	560	299	173,749	581
Portland and Falmouth.....	369	118,700	322	369	118,235	320	374	116,600	312	381	117,120	307	387	119,900	310
Saco.....	18	655	36	19	1,559	82	21	1,884	90	20	2,320	116	17	2,504	147
Kennebunk.....	43	8,673	202	39	8,559	219	39	8,614	221	36	4,864	135	38	5,917	156
York.....	9	311	35	12	373	31	12	351	29	11	343	31	12	396	33
New Hampshire:															
Portsmouth.....	74	9,688	131	74	9,841	133	65	9,045	139	66	9,062	137	70	10,574	151
Massachusetts.....	2,299	430,182	187	2,235	415,109	186	2,252	429,092	191	2,232	442,009	198	2,156	437,364	203
Newburyport.....	66	13,188	200	64	12,445	194	61	11,637	191	70	18,423	283	72	18,910	263
Gloucester.....	476	28,195	59	469	27,302	58	478	27,850	58	503	31,342	62	496	31,762	64
Salem and Beverly.....	68	6,651	98	62	5,409	87	64	5,291	83	48	4,060	85	41	1,772	43
Marblehead.....	61	2,419	40	53	1,791	34	57	1,963	34	48	2,540	53	42	2,777	66
Boston and Charlestown.....	808	264,263	327	803	253,551	316	835	266,964	320	791	261,424	330	789	261,838	332
Plymouth.....	51	2,963	58	47	2,444	52	40	2,071	52	45	2,701	60	45	2,408	54
Barnstable.....	340	30,156	89	315	27,817	88	322	30,171	94	332	32,736	99	312	30,936	99
Nantucket.....	16	1,306	82	16	1,349	84	16	1,312	82	17	1,376	81	19	1,537	81
Edgartown.....	24	1,540	64	25	1,906	76	23	1,439	63	24	1,362	57	26	1,572	60
New Bedford.....	265	44,838	169	256	43,231	169	232	42,187	182	233	41,228	177	208	36,979	178
Fall River.....	124	34,663	280	125	37,864	303	124	38,207	308	121	44,817	370	106	46,873	442
Rhode Island.....	300	41,106	137	302	38,399	127	309	44,240	143	282	42,012	149	291	41,499	143
Providence.....	125	34,386	275	131	31,727	242	144	37,544	261	139	36,226	261	142	34,304	242
Bristol and Warren.....	31	1,449	47	35	1,828	52	36	2,039	57	33	1,224	37	34	1,891	56
Newport.....	144	5,271	37	136	4,844	36	129	4,657	36	110	4,562	41	115	5,304	46
Connecticut.....	822	82,742	101	828	87,142	105	866	96,410	111	865	102,975	119	861	109,198	127
Stonington.....	124	7,803	63	118	8,263	70	110	8,223	75	99	6,455	65	103	6,465	63
New London.....	200	22,232	111	198	23,552	119	185	25,914	140	187	28,726	154	192	32,681	170
Middletown.....	106	14,066	133	105	15,404	147	104	14,501	139	99	14,589	147	97	14,332	148
New Haven.....	226	28,178	125	237	30,304	128	291	38,550	132	312	43,535	140	297	45,195	152
Fairfield.....	166	10,463	63	170	9,619	57	176	9,222	52	168	9,673	58	172	10,525	61
New York.....	4,009	934,950	233	4,095	934,890	228	4,101	945,231	230	4,120	943,587	229	4,236	978,371	231
New York.....	3,721	918,057	247	3,801	917,651	241	3,830	928,658	242	3,870	928,333	240	3,986	964,556	242
Sag Harbor.....	288	16,893	59	294	17,209	59	271	16,573	61	250	15,254	61	250	13,815	55
New Jersey.....	1,087	87,556	81	1,126	96,150	85	1,194	101,466	85	1,193	99,519	83	1,103	91,595	83
Newark.....	64	5,316	83	58	4,485	77	62	4,981	80	70	6,002	86	79	7,269	93
Perth Amboy.....	435	36,722	84	457	43,510	95	517	48,648	94	505	47,991	95	383	36,706	95
Little Egg Harbor.....	72	5,583	78	67	5,237	78	66	4,867	74	65	4,652	72	80	4,396	73
Great Egg Harbor.....	127	14,859	117	135	16,548	123	139	16,652	120	127	14,530	114	135	17,619	131
Bridgeton.....	314	16,153	51	338	17,694	52	340	17,759	52	354	17,714	50	378	17,979	48
Burlington.....	75	8,923	119	71	8,076	122	70	8,559	122	72	8,630	120	66	7,526	114
Pennsylvania:															
Philadelphia.....	941	209,112	222	936	209,568	224	895	205,663	230	900	221,508	246	894	218,947	245
Delaware:															
Delaware.....	182	16,287	89	176	16,090	91	165	16,669	101	177	17,678	100	182	19,939	110
Maryland.....	1,788	121,021	68	1,840	118,981	65	1,922	125,176	65	1,981	129,048	65	2,168	138,871	64
Baltimore.....	1,013	102,139	101	1,046	99,739	95	1,090	104,475	96	1,106	107,113	97	1,188	115,470	97
Annapolis.....	118	2,262	19	120	2,273	19	120	2,273	19	122	2,548	21	162	3,249	20
Eastern.....	657	16,620	25	674	16,969	25	712	18,428	26	753	19,387	26	818	20,152	25
District of Columbia:															
Georgetown.....	91	8,771	96	88	9,236	105	87	10,568	121	84	10,746	128	82	10,968	134

71

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Virginia.....	1,150	33,555	29	1,190	33,343	28	1,261	37,311	30	1,230	38,285	31	1,180	41,305	35
Alexandria.....	99	3,945	40	100	3,628	36	87	3,654	42	84	3,525	42	88	5,952	68
Tappahannock.....	102	2,669	26	130	3,107	24	140	3,230	23	120	3,137	26	130	3,243	25
Yorktown.....	142	2,436	17	135	1,994	15	131	2,103	16	202	3,256	16	219	4,058	19
Richmond.....	39	4,657	119	57	5,955	104	59	6,468	110	64	7,385	115	65	7,908	122
Petersburg.....	3	47	16	4	264	66	4	278	70	5	175	35	5	217	43
Norfolk and Portsmouth.....	407	14,521	36	426	13,326	31	478	16,041	34	410	15,447	38	397	15,335	39
Cherrystone.....	358	5,280	15	338	5,069	15	382	5,537	15	345	5,360	16	285	4,502	16
North Carolina.....	330	12,669	38	347	15,765	45	336	13,340	40	340	14,875	44	353	17,096	48
Albemarle.....	76	2,773	36	79	3,093	39	74	2,860	39	64	2,746	43	67	2,786	42
Pamlico.....	106	2,629	25	114	2,700	24	118	3,033	26	125	3,454	28	118	3,227	27
Beaufort.....	70	1,096	16	65	1,059	16	67	1,158	17	73	1,247	17	86	1,614	19
Wilmington.....	78	6,171	79	89	8,913	100	77	6,289	82	78	7,428	95	82	9,469	115
South Carolina.....	223	11,482	51	222	11,737	53	228	10,696	47	219	13,457	61	221	12,043	54
Georgetown.....	19	1,002	53	11	595	54	17	1,164	68	18	2,217	123	21	2,381	113
Charleston.....	182	9,712	53	188	10,057	53	189	8,572	45	175	9,387	54	177	8,192	46
Beaufort.....	22	768	35	23	1,085	47	22	990	44	26	1,853	71	23	1,470	64
Georgia.....	119	21,118	177	131	26,427	202	120	26,684	222	120	34,560	288	131	39,250	300
Savannah.....	72	14,310	199	81	19,409	240	76	20,732	273	79	25,756	326	77	27,777	361
Brunswick.....	40	5,286	132	47	6,896	147	40	5,442	136	37	8,648	234	50	10,832	217
St. Mary.....	7	1,522	217	3	122	41	4	510	128	4	156	39	4	641	160
Florida.....	395	33,761	85	385	28,981	75	419	30,161	72	442	34,055	77	407	30,899	76
Fernandina.....	18	4,938	274	20	4,316	216	19	3,853	203	16	3,167	198	17	3,725	219
St. John.....	47	4,561	97	48	3,960	83	59	5,259	89	59	5,442	92	12	522	44
St. Augustine.....	2	60	30	3	73	24	4	67	17	4	257	64	6	301	50
Key West.....	152	7,082	47	143	5,610	39	153	6,462	42	154	6,864	45	151	5,997	40
St. Mark.....	30	2,327	78	20	1,598	80	42	3,042	72	45	3,179	71	46	1,494	32
Apalachicola.....	32	2,504	78	31	1,412	46	35	2,452	70	34	3,037	89	30	2,178	73
Pensacola.....	114	12,289	108	120	12,006	100	107	9,026	84	130	12,109	93	145	16,652	115
Alabama:															
Mobile.....	121	15,291	126	130	16,272	125	149	16,611	111	154	13,676	89	131	10,535	80
Mississippi:															
Pearl River.....	149	4,966	33	159	6,527	41	158	6,110	39	135	6,099	45	181	5,216	40
Louisiana.....	497	61,625	124	489	58,377	119	503	52,895	105	434	52,403	121	471	51,712	110
New Orleans.....	396	57,848	146	399	55,085	138	411	49,941	122	350	49,457	141	368	48,194	131
Teche.....	101	3,777	37	90	3,292	37	92	2,954	32	84	2,946	35	103	3,518	34
Texas.....	264	12,738	48	275	15,415	56	277	11,464	41	274	10,672	39	267	10,802	40
Galveston.....	184	9,780	53	195	12,465	64	191	8,102	42	197	8,313	42	186	8,144	44
Saluria.....	37	838	23	31	772	25	29	732	25	27	690	26	29	548	19
Corpus Christi.....	28	896	32	34	1,241	37	43	1,908	44	38	972	26	36	1,134	32
Brasos de Santiago.....	15	1,222	81	15	937	62	14	722	52	12	691	58	16	976	61
Paso del Norte.....															

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total	17,771	2,781,791	157	17,362	2,659,448	153	17,029	2,595,307	152	17,180	2,587,089	151	17,165	2,555,649	149
Maine.....	2,477	487,574	197	2,391	459,139	192	2,247	416,381	185	2,221	409,664	184	2,103	376,010	179
Passamaquoddy.....	180	18,830	105	173	18,252	106	161	17,802	111	173	19,947	115	157	19,356	123
Machias.....	196	19,198	98	185	17,886	97	181	16,606	92	180	16,389	89	194	16,620	86
Frenchman Bay.....	227	13,920	61	241	16,008	66	230	13,743	60	232	14,506	63	226	14,763	65
Castine.....	251	14,483	58	234	13,079	56	233	12,768	55	242	13,612	56	252	13,666	54
Bangor.....	167	23,680	142	161	21,435	133	157	21,587	137	144	21,281	148	148	23,895	101
Belfast.....	255	47,748	187	232	41,355	178	187	33,491	179	170	31,321	184	148	25,468	172
Waldoboro.....	349	76,588	219	339	70,372	208	341	70,416	206	344	61,220	178	316	50,987	161
Wiscasset.....	150	7,211	48	141	7,617	54	130	8,317	64	116	7,074	61	97	6,228	64
Bath.....	260	145,374	559	259	141,913	548	248	132,080	533	255	139,856	548	224	117,415	524
Portland and Falmouth.....	379	114,387	302	365	105,306	289	323	84,514	262	303	79,865	264	301	83,699	278
Saco.....	19	2,383	125	19	2,191	115	17	1,597	94	16	1,277	80	11	841	76
Kennebunk.....	31	3,357	108	32	3,400	106	30	3,157	105	27	2,981	110	24	2,884	119
York.....	13	415	32	10	330	33	9	303	34	9	335	37	5	208	42
New Hampshire:															
Portsmouth.....	66	10,891	165	65	10,422	160	65	10,436	161	65	10,149	156	63	10,057	160
Massachusetts.....	2,068	442,837	214	2,011	435,969	217	1,887	420,897	223	1,887	433,133	230	1,828	411,244	225
Newburyport.....	63	17,162	272	64	16,565	259	38	13,153	346	39	12,642	324	28	9,091	325
Gloucester.....	510	33,043	67	494	33,228	67	479	32,568	68	469	32,828	70	462	33,714	73
Salem and Beverly.....	38	1,952	51	39	2,319	59	51	4,757	93	44	4,291	98	36	2,663	74
Marblehead.....	44	3,036	69	40	2,866	72	35	2,353	67	33	2,066	90	28	2,194	78
Boston and Charlestown.....	723	267,805	370	699	262,487	376	628	249,864	398	667	265,050	397	675	257,051	381
Plymouth.....	35	2,038	58	31	1,700	55	25	1,553	62	20	1,300	65	19	1,370	72
Barnstable.....	305	29,609	97	307	28,008	94	297	27,881	94	282	24,752	88	275	21,617	79
Nantucket.....	19	1,472	77	16	1,041	65	15	458	31	19	488	26	20	435	22
Edgartown.....	23	1,235	54	20	981	49	20	980	49	31	935	30	34	1,325	39
New Bedford.....	209	36,446	174	202	35,928	178	198	36,379	184	185	34,817	188	162	31,349	194
Fall River.....	99	48,139	486	99	49,946	505	101	50,945	504	98	53,064	541	89	50,435	567
Rhode Island.....	270	39,786	147	265	39,111	148	242	36,906	153	246	36,728	149	253	39,996	158
Providence.....	127	32,881	250	131	32,289	246	109	29,493	271	108	28,705	266	108	31,263	280
Bristol and Warren.....	31	1,511	49	30	1,454	48	27	1,368	51	28	1,415	51	27	1,312	49
Newport.....	112	5,394	48	104	5,368	52	106	6,045	57	110	6,608	60	118	7,421	63
Connecticut.....	833	108,420	130	818	109,659	134	682	95,902	141	812	110,753	147	790	119,303	150
Stonington.....	109	6,669	61	105	6,448	61	106	5,512	52	109	5,482	50	111	5,204	47
New London.....	176	31,881	181	172	32,468	189	178	36,034	202	177	38,131	215	172	38,807	226
Middletown.....	94	14,115	150	95	14,088	148									
Hartford.....							85	12,623	149	82	12,071	147	81	11,313	140
New Haven.....	284	44,491	157	275	45,331	165	146	30,266	207	277	51,613	186	268	50,445	188
Fairfield.....	170	11,264	66	171	11,324	66	167	11,467	69	167	12,456	75	164	13,532	83
New York.....	4,171	986,145	236	3,988	912,396	229	4,033	928,226	230	4,050	908,475	224	4,092	926,508	229
New York.....	3,930	971,485	247	3,756	898,475	239	3,793	913,575	241	3,806	895,481	235	3,874	925,015	239
Sag Harbor.....	241	14,660	61	232	13,921	60	240	14,651	61	244	12,994	53	218	11,493	53
New Jersey.....	1,077	89,133	83	1,107	87,738	79	1,098	89,378	81	1,141	91,857	81	1,172	92,623	79
Newark.....	66	5,349	81	71	6,768	95	73	6,666	91	68	6,512	96	70	6,380	91
Perth Amboy.....	374	36,709	98	376	36,197	96	375	38,973	104	398	42,190	106	423	44,331	105
Little Egg Harbor.....	62	4,477	72	53	4,127	78	48	3,947	82	43	2,993	70	43	2,731	64
Great Egg Harbor.....	133	17,904	135	138	16,788	126	139	17,324	125	158	17,780	113	169	18,123	107
Bridgeton.....	399	21,087	53	431	20,280	47	427	19,710	46	438	19,536	45	429	18,162	42
Burlington.....	43	3,607	84	43	3,578	83	36	2,758	77	36	2,846	79	38	2,896	76
Pennsylvania:															
Philadelphia.....	842	216,435	257	825	225,300	273	827	215,450	261	796	206,908	260	800	203,027	254
Delaware:															
Delaware.....	186	19,946	107	175	16,731	96	188	16,382	87	202	17,616	87	195	19,110	98
Maryland.....	2,280	146,839	64	2,233	144,882	65	2,227	140,683	63	2,167	141,432	65	2,195	136,747	62
Baltimore.....	1,262	123,493	98	1,232	122,329	99	1,200	118,192	98	1,172	120,100	102	1,163	114,037	96
Annapolis.....	160	3,174	20	130	2,938	23	149	3,215	22	144	3,115	22	154	3,309	21
Eastern.....	858	20,172	24	871	19,615	23	878	19,276	22	851	18,217	21	878	19,401	22
District of Columbia:															
Georgetown.....	72	10,187	141	67	10,081	150	77	11,097	144	83	10,974	132	108	11,741	109

COMPARATIVE STATISTICS—Continued.

TABLE 29.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Virginia	1,236	45,788	37	1,264	42,257	33	1,289	44,520	35	1,307	41,190	32	1,329	42,798	32
Alexandria.....	84	5,582	66	70	4,904	65	66	3,568	54	72	4,320	60	74	2,069	28
Tappahannock.....	148	4,016	27	146	4,053	28	145	3,912	27	140	3,804	27	145	3,905	28
Yorktown.....	214	3,730	17	213	4,280	20	224	7,534	34	222	6,517	29	213	6,286	30
Richmond.....	63	10,017	159	58	6,641	115	62	6,043	97	66	6,776	103	64	5,095	80
Petersburg.....	6	229	38	8	255	32	6	195	33	5	67	13	5	67	13
Norfolk and Portsmouth.....	408	17,017	42	425	16,377	39	438	17,376	40	444	13,641	31	466	18,976	41
Cherrystone.....	313	5,197	17	338	5,738	17	348	5,892	17	358	6,685	17	362	6,310	17
North Carolina.....	350	14,906	43	331	12,690	38	348	12,739	37	370	13,204	36	398	12,951	33
Albemarle.....	70	2,794	40	71	2,883	41	77	2,998	39	82	3,143	38	91	3,321	36
Pamlico.....	118	2,885	24	114	2,847	25	118	3,103	26	126	3,294	26	132	3,385	26
Beaufort.....	87	1,631	19	87	1,597	18	101	1,845	18	109	1,904	17	124	2,166	17
Wilmington.....	75	7,596	101	59	5,363	91	52	4,793	92	53	4,863	92	51	4,070	80
South Carolina.....	227	12,807	56	206	11,625	56	216	12,537	58	220	11,472	52	228	12,148	53
Georgetown.....	23	2,679	116	22	1,939	88	21	2,063	98	24	2,674	111	24	2,367	99
Charleston.....	183	9,419	51	160	8,237	51	174	9,522	55	168	7,719	46	174	8,378	48
Beaufort.....	21	709	34	24	1,449	60	21	952	45	28	1,079	39	30	1,403	47
Georgia.....	133	35,831	269	131	32,463	248	135	32,551	241	135	31,732	235	145	32,344	223
Savannah.....	88	27,161	309	90	25,580	284	89	23,806	267	90	25,217	280	93	24,188	260
Brunswick.....	42	8,091	193	37	5,966	161	43	8,166	190	42	6,163	147	49	8,081	165
St. Mary.....	3	579	193	4	917	229	3	579	193	3	352	117	3	75	25
Florida.....	489	39,488	81	491	33,711	69	505	37,388	74	528	32,319	61	522	27,618	53
Fernandina.....	17	3,591	211	15	3,309	221	14	3,586	256	15	4,042	269	14	3,120	223
St. John.....	74	6,358	86	75	6,193	83	60	7,309	122	71	6,943	98	72	5,969	82
St. Augustine.....	8	332	42	8	332	42	11	405	37	20	578	29	23	447	19
Key West.....	154	7,402	48	173	7,851	45	186	7,123	38	195	7,155	37	155	4,172	27
St. Mark.....	53	1,582	30	48	1,125	23	47	1,370	29	42	1,042	25	34	715	21
Apalachicola.....	37	1,677	45	39	1,852	47	40	3,653	91	42	3,632	86	40	3,015	75
Pensacola.....	146	18,546	127	133	13,040	98	147	13,942	95	143	8,927	62	147	9,281	63
Tampa.....													37	929	25
Alabama:															
Mobile.....	142	10,958	77	132	10,983	83	125	9,824	79	129	10,119	78	130	10,312	79
Mississippi:															
Pearl River.....	129	5,396	42	151	5,953	39	156	9,511	61	157	7,549	48	170	11,140	66
Louisiana.....	471	49,804	106	453	45,680	101	444	43,024	97	435	42,955	99	409	40,605	99
New Orleans.....	371	46,604	120	352	42,981	123	337	40,242	119	325	39,535	122	308	37,623	122
Teche.....	100	3,200	32	101	2,609	27	107	2,782	26	110	3,420	31	101	3,072	30
Texas.....	252	8,620	34	258	12,658	49	238	11,475	48	229	9,860	43	220	9,277	41
Galveston.....	180	6,804	38	190	10,604	56	184	9,196	50	180	7,958	44	178	7,361	41
Saluria.....	26	346	13	23	303	13	15	212	14	13	195	15	11	183	17
Corpus Christi.....	33	998	30	33	1,302	39	28	1,224	44	26	783	29	29	768	26
Brazos de Santiago.....	13	472	36	12	449	37	9	418	46	7	382	55	8	405	51
Paso del Norte.....							2	425	213	3	562	187	3	560	187

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total.....	2,251	631,302	280	2,364	644,204	273	2,532	692,659	274	2,584	730,308	283	2,603	755,754	281
Maine.....	85	16,975	200	88	16,471	187	93	16,657	179	101	18,954	188	114	22,965	201
Passamaquoddy.....	11	4,707	428	11	4,707	428	14	3,975	284	13	3,216	247	16	4,416	276
Machias.....	4	165	41	4	89	22	4	75	19	5	90	18	7	160	23
Frenchman Bay.....	1	32	32	2	45	23	4	75	19	6	110	18	5	125	25
Castine.....	1	25	25	1	25	25				1	25	25	1	25	25
Bangor.....	7	557	80	8	539	67	8	404	51	9	717	80	12	806	67
Belfast.....	2	97	49	2	97	49	3	146	49	4	157	39	4	157	39
Waldoboro.....	9	891	99	8	1,008	126	5	815	163	4	793	198	4	1,138	285
Wiscasset.....	3	138	46	3	138	46	2	84	42	2	84	42			
Bath.....	22	3,057	139	25	3,019	121	27	3,138	116	28	4,634	166	32	4,400	138
Portland and Falmouth.....	23	7,201	313	22	6,069	305	23	7,685	334	25	8,825	353	30	11,507	384
Saco.....	2	105	53	2	105	53	3	260	87	4	303	76	3	231	77
Kennebunk.....															
New Hampshire:															
Portsmouth.....	5	206	41	7	249	36	7	254	36	8	413	52	7	378	54
Massachusetts.....	152	48,687	320	146	46,603	319	160	50,921	318	177	64,309	363	188	60,626	322
Newburyport.....	13	773	59	16	775	48	15	741	49	15	906	60	16	916	57
Gloucester.....	4	73	18	6	120	20	5	165	33	6	180	30	1	69	69
Salem and Beverly.....	4	811	203	1	14	14	3	44	15	3	43	14	3	31	10
Marblehead.....				1	16	16	1	16	16						
Boston and Charlestown.....	89	26,381	296	88	25,913	294	102	29,842	293	114	36,664	322	132	34,382	280
Plymouth.....	2	464	232	1	325	325	1	159	159	1	344	344			
Barnstable.....	1	90	90							1	7	7			
Nantucket.....	4	1,080	270	3	1,070	357	3	1,069	356	2	1,062	531	2	1,062	531
Edgartown.....				1	11	11									
New Bedford.....	15	2,963	198	11	2,308	210	12	2,727	227	13	2,786	214	12	2,320	192
Fall River.....	20	16,052	803	18	16,051	892	18	16,158	898	22	22,287	1,013	22	21,846	993
Rhode Island.....	59	24,518	416	54	21,351	395	54	24,340	451	49	23,707	484	59	21,687	368
Providence.....	30	22,274	742	27	19,491	722	29	22,440	774	30	21,800	727	37	19,889	538
Newport.....	21	1,968	94	17	1,656	97	16	1,613	101	13	1,722	132	15	1,580	105
Bristol and Warren.....	8	276	35	10	204	20	9	287	32	6	185	31	7	218	31
Connecticut.....	108	30,047	278	108	30,379	281	117	32,066	274	135	34,203	253	152	35,617	234
Stonington.....	9	1,163	129	9	1,187	132	11	1,329	121	12	1,326	111	12	1,376	115
New London.....	37	13,334	360	37	13,607	368	36	15,912	442	41	16,425	401	46	16,516	359
Middletown.....	25	5,917	237	21	5,968	270	19	4,325	228	19	4,445	234	19	4,269	225
New Haven.....	25	6,462	258	28	6,742	241	33	7,048	214	42	7,731	184	47	8,499	181
Fairfield.....	12	3,171	264	13	3,175	244	18	3,452	192	21	4,276	204	28	4,957	177
New York.....	850	292,629	344	925	305,741	331	987	327,974	332	1,006	338,604	337	1,072	363,751	339
New York.....	824	290,674	353	894	303,394	339	954	325,427	341	978	336,327	344	1,044	361,439	346
Sag Harbor.....	26	1,955	75	31	2,347	76	33	2,547	77	28	2,277	81	28	2,312	83
New Jersey.....	113	17,743	157	123	18,751	152	135	20,237	150	127	17,982	142	110	16,423	149
Newark.....	27	2,808	104	30	2,977	99	35	3,450	99	32	3,358	105	35	3,510	100
Perth Amboy.....	62	10,212	165	68	11,172	164	73	12,048	165	66	9,840	149	48	8,178	170
Little Egg Harbor.....	1	167	167	1	167	167	2	215	108	2	55	28	1	48	48
Great Egg Harbor.....	2	36	18	4	65	16	3	48	16	2	182	61	2	170	85
Bridgeton.....	3	149	50	3	149	50	3	149	50	4	181	45	5	261	52
Burlington.....	18	4,371	243	17	4,221	248	19	4,327	228	20	4,366	218	19	4,256	224
Pennsylvania:															
Philadelphia.....	269	72,201	268	269	70,337	261	279	75,268	270	289	79,022	273	289	74,116	256
Delaware:															
Delaware.....	21	4,042	192	23	4,140	180	19	3,769	198	21	3,934	187	25	6,291	252
Maryland.....	139	38,742	279	142	38,478	271	153	47,626	311	154	47,371	308	174	50,497	290
Baltimore.....	138	38,723	281	141	38,459	273	150	47,318	315	151	47,024	311	172	50,391	293
Annapolis.....										1	45	45			
Eastern.....	1	19	19	1	19	19	3	303	103	2	302	151	2	106	53
District of Columbia:															
Georgetown.....	33	6,851	208	38	7,668	202	38	8,278	218	35	8,406	240	31	7,902	255

75

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.		Number.	Tonnage.	
		Total.	Average.		Total.	Average.		Total.	Average.		Total.	Average.		Total.	Average.
Virginia.....	86	6,716	78	96	7,896	82	107	8,545	80	104	8,398	81	111	8,747	79
Alexandria.....	12	754	63	12	756	63	12	699	58	12	481	40	14	566	40
Tappahannock.....	2	251	125	4	356	89	5	279	56	3	170	57	2	92	46
Yorktown.....										1	57	57	3	178	59
Richmond.....	16	986	62	18	2,031	113	20	2,062	103	19	2,014	106	20	2,091	105
Petersburg.....	2	31	16	3	74	25	1	16	16	4	162	41	4	210	53
Norfolk and Portsmouth.....	54	4,694	87	59	4,679	79	67	5,470	82	63	5,495	87	66	5,591	85
Cherrystone.....							2	19	10	2	19	10	2	19	10
North Carolina.....	41	3,511	86	49	4,034	82	56	4,686	84	55	4,788	87	63	5,341	85
Albemarle.....	21	1,835	87	28	2,139	76	27	1,999	74	25	2,129	85	25	2,140	86
Pamlico.....	6	384	64	7	457	65	12	861	72	14	932	67	17	1,123	66
Beaufort.....										1	33	33	2	152	76
Wilmington.....	14	1,292	92	14	1,438	103	17	1,826	107	15	1,694	113	19	1,926	101
South Carolina.....	49	6,414	131	44	6,496	148	46	4,993	109	45	6,259	139	50	6,550	131
Georgetown.....	14	613	44	8	220	28	10	422	42	9	706	78	11	834	76
Charleston.....	31	5,586	180	32	6,080	190	31	4,258	137	31	5,240	169	33	5,307	161
Beaufort.....	4	215	54	4	196	49	5	313	63	5	313	63	6	409	68
Georgia.....	33	11,764	356	36	16,029	445	38	16,708	440	42	21,525	513	44	23,246	526
Savannah.....	18	10,564	584	20	14,542	727	22	15,826	719	31	20,685	667	31	22,279	719
Brunswick.....	12	966	81	14	1,372	98	14	767	55	8	691	86	12	933	78
St. Mary.....	3	294	98	2	115	58	2	115	58	3	149	50	1	84	34
Florida.....	72	8,429	117	75	8,351	111	86	9,966	116	87	9,878	114	52	7,961	153
Fernandina.....	1	24	24	3	406	136	2	322	161	2	322	161	2	355	178
St. John.....	29	2,140	74	29	2,024	70	37	2,855	77	39	2,551	65			
St. Augustine.....	1	27	27	1	27	27									
Key West.....	11	3,243	295	9	2,222	247	11	2,962	269	12	3,495	291	12	3,317	276
St. Mark.....	7	601	86	7	412	59	8	423	53	5	293	41	8	563	70
Apalachicola.....	7	1,239	177	6	1,157	193	9	1,242	138	10	1,693	180	11	1,400	127
Pensacola.....	16	1,155	72	20	2,101	105	19	2,182	115	19	1,704	90	19	2,316	122
Alabama:															
Mobile.....	44	7,005	159	46	6,585	143	51	7,209	141	45	5,781	128	41	5,600	137
Mississippi:															
Pearl River.....	12	816	68	10	656	66	18	1,102	61	14	912	65	12	919	77
Louisiana.....	48	29,567	616	47	29,320	624	51	28,631	561	54	32,554	603	60	33,517	559
New Orleans.....	21	27,920	1,330	21	27,920	1,330	24	27,442	1,143	26	30,984	1,192	27	31,688	1,174
Teche.....	27	1,647	61	26	1,400	54	27	1,189	44	28	1,570	56	33	1,829	55
Texas.....	32	4,439	139	38	4,669	123	37	3,709	100	36	3,308	92	39	3,630	93
Galveston.....	28	3,444	123	34	4,013	118	33	3,149	95	31	2,772	87	33	2,954	90
Corpus Christi.....							1	112	112	2	158	79	2	158	79
Brazos de Santiago.....	4	995	249	4	656	164	3	448	140	3	448	149	4	518	130
Paso del Norte.....															

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total.....	2,671	773,444	290	2,662	763,302	287	2,680	773,823	289	2,763	785,164	284	2,829	798,912	282
Maine.....	119	22,242	187	116	22,043	190	112	19,938	178	120	22,931	191	123	24,208	197
Passamaquoddy.....	18	4,169	232	11	3,510	319	13	4,647	357	14	5,040	360	13	4,811	370
Machias.....	5	102	20	5	123	25	4	89	22	5	106	21	5	109	22
Frenchman Bay.....	6	218	36	7	494	71	8	521	65	13	740	57	12	721	60
Castine.....	1	25	25	3	55	18	2	30	15	2	30	15	3	78	26
Bangor.....	12	789	66	12	842	70	11	726	66	10	736	74	13	1,102	85
Belfast.....	4	157	39	2	92	46	2	67	34	2	84	42	1	35	35
Waldoboro.....	4	1,138	285	4	793	198	5	819	164	6	1,006	168	6	848	141
Wiscasset.....	2	106	53	2	106	53	1	50	50	2	229	115	1	50	50
Bath.....	28	3,530	126	27	3,502	130	26	3,470	133	27	4,165	154	30	5,724	191
Portland and Falmouth.....	36	11,777	327	39	12,280	315	37	9,306	252	36	10,571	294	36	10,506	292
Saco.....	3	231	77	3	231	77	2	198	99	2	198	99	2	198	99
Kennebunk.....				1	15	15	1	15	15	1	26	26	1	26	26
New Hampshire:															
Portsmouth.....	7	389	56	7	389	56	7	389	56	9	418	46	8	400	50
Massachusetts.....	156	68,941	442	166	70,424	424	154	70,964	461	166	77,055	464	174	80,527	463
Newburyport.....	15	906	60	14	893	64	11	801	73	12	784	65	9	468	52
Gloucester.....	6	209	35	8	273	34	7	246	35	8	311	39	8	311	39
Salem and Beverly.....	2	39	20	5	170	34	6	182	30	6	181	30	4	103	26
Marblehead.....	2	73	37	1	11	11	2	49	25	2	57	29	3	72	24
Boston and Charlestown.....	96	42,170	439	101	43,465	430	92	43,014	468	102	48,326	474	113	50,533	447
Plymouth.....	1	344	344	1	344	344	1	344	344	1	344	344	1	344	344
Barnstable.....				1	46	46	1	46	46	1	46	46	2	114	57
Nantucket.....	2	1,062	531	1	578	578									
Edgartown.....													1	16	16
New Bedford.....	12	3,336	195	14	2,836	203	16	4,005	250	13	3,805	293	12	4,123	344
Fall River.....	20	21,802	1,090	20	21,808	1,090	18	22,277	1,238	21	23,201	1,105	21	24,443	1,164
Rhode Island.....	44	21,209	482	49	21,129	431	50	20,384	408	54	20,534	380	60	24,489	408
Providence.....	30	19,492	650	32	19,130	598	29	17,848	615	30	17,900	597	33	21,627	655
Newport.....	11	1,592	145	14	1,868	133	18	2,411	134	20	2,499	125	22	2,691	122
Bristol and Warren.....	3	125	42	3	125	42	3	125	42	4	135	34	5	171	34
Connecticut.....	148	36,565	247	153	36,400	238	156	37,475	240	166	38,732	233	168	38,076	227
Stonington.....	11	2,256	205	11	2,256	205	10	1,268	127	7	1,070	153	8	736	92
New London.....	38	16,221	427	36	16,106	447	37	17,567	475	40	17,866	447	38	17,629	464
Middletown.....	18	4,183	233	18	3,887	216									
New Haven.....	48	8,565	178	48	8,544	178	48	8,706	181	53	9,514	180	52	8,510	164
Fairfield.....	33	5,330	162	40	5,607	140	40	5,972	149	44	6,159	140	50	7,096	154
Hartford.....							21	3,962	189	22	4,123	187	20	3,505	175
New York.....	1,054	366,487	348	1,057	357,364	338	1,077	371,270	345	1,100	372,743	339	1,099	375,626	342
New York.....	1,028	364,170	354	1,030	354,991	345	1,049	368,246	351	1,074	369,794	344	1,076	372,896	347
Sag Harbor.....	26	2,317	89	27	2,373	88	28	3,024	108	26	2,949	113	23	2,730	119
New Jersey.....	105	13,688	130	99	13,380	135	102	13,614	133	99	13,048	132	104	13,124	126
Newark.....	35	3,303	94	34	3,634	107	34	3,761	111	34	3,755	110	36	3,486	97
Perth Amboy.....	44	7,767	177	40	7,298	182	42	7,302	174	42	7,215	172	46	7,841	170
Little Egg Harbor.....	3	183	61	3	177	59	1	42	42				1	52	52
Great Egg Harbor.....	4	446	112	6	461	77	7	537	77	7	553	79	4	286	72
Bridgeton.....	7	828	118	5	679	136	6	809	135	4	395	99	4	385	99
Burlington.....	12	1,161	97	11	1,131	103	12	1,163	97	12	1,130	94	13	1,064	82
Pennsylvania:															
Philadelphia.....	277	77,414	279	266	74,837	281	269	77,070	287	264	74,208	281	270	73,195	271
Delaware:															
Delaware.....	26	5,099	196	26	4,061	156	27	3,547	131	30	4,207	140	31	3,968	128
Maryland.....	173	53,370	308	170	54,434	320	162	53,828	332	162	55,767	344	169	57,065	341
Baltimore.....	170	53,195	313	165	54,120	328	157	53,468	341	158	55,513	351	163	57,221	351
Annapolis.....	1	106	106	1	106	106	1	106	106						
Eastern.....	2	69	35	4	208	52	4	254	64	4	254	64	6	444	74
District of Columbia:															
Georgetown.....	30	8,580	286	31	8,636	279	34	9,054	266	36	8,691	241	37	8,745	236

ATLANTIC COAST AND GULF OF MEXICO.

77

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Virginia.....	101	8,346	83	97	7,815	81	99	8,270	84	99	8,137	82	116	10,028	86
Alexandria.....	14	622	44	10	447	45	10	428	43	10	428	43	11	495	45
Tappahannock.....	3	170	57	3	170	57	5	304	61	5	304	61	5	304	61
Yorktown.....	3	148	49	4	820	205	4	812	203	3	785	262	4	1,195	299
Richmond.....	15	1,982	132	16	1,027	64	15	1,198	80	16	1,304	82	17	1,193	70
Petersburg.....	4	210	53	4	210	53	3	165	55	2	87	10	2	37	19
Norfolk and Portsmouth.....	58	4,997	86	58	5,005	86	59	5,167	88	59	5,021	85	70	6,098	87
Cherrystone.....	4	217	54	2	136	68	3	196	65	4	258	65	7	706	101
North Carolina.....	62	4,739	76	58	4,415	76	63	4,630	73	72	5,187	72	78	5,539	71
Albemarle.....	26	2,184	84	27	2,305	85	27	2,302	85	31	2,461	79	33	2,451	74
Pamlico.....	16	912	57	16	919	57	19	1,187	62	21	1,266	60	23	1,424	62
Beaufort.....	4	197	49	2	99	50	2	100	50	3	154	51	3	154	51
Wilmington.....	16	1,436	90	13	1,092	84	15	1,041	69	17	1,306	77	19	1,510	79
South Carolina.....	52	6,762	130	49	6,229	127	56	6,677	119	57	6,703	118	59	6,914	117
Georgetown.....	12	853	71	14	972	69	12	860	72	13	974	75	14	1,017	73
Charleston.....	34	5,500	162	26	4,637	178	33	5,074	154	33	5,006	152	34	5,222	154
Beaufort.....	6	409	68	9	620	69	11	743	68	11	723	66	11	675	61
Georgia.....	51	24,024	471	49	23,827	486	50	23,403	468	53	23,633	446	61	25,723	422
Savannah.....	36	22,652	629	34	22,455	660	32	21,687	678	34	21,458	631	34	22,018	648
Brunswick.....	14	1,338	96	14	1,338	96	17	1,682	99	18	2,141	119	25	3,653	146
St. Mary.....	1	34	34	1	34	34	1	34	34	1	34	34	2	52	26
Florida.....	110	11,568	105	115	12,430	108	108	12,239	113	122	12,282	101	122	9,986	82
Fernandina.....	3	389	130	3	389	130	1	67	67	1	67	67	2	181	91
St. John.....	50	3,574	71	52	4,258	82	41	4,812	117	47	5,204	111	45	4,065	91
St. Augustine.....	3	276	92	3	276	92	3	272	91	8	391	49	8	194	24
Key West.....	15	8,658	244	17	4,005	236	19	3,553	187	22	3,269	149	9	1,667	185
St. Mark.....	9	919	102	10	722	72	10	734	73	8	403	50	8	372	47
Apalachicola.....	12	1,309	109	11	1,242	113	12	1,889	116	15	1,633	109	15	1,383	92
Pensacola.....	18	1,443	80	19	1,538	81	22	1,412	64	21	1,315	63	23	1,411	61
Tampa.....													12	603	58
Alabama.....															
Mobile.....	49	5,698	116	49	5,824	119	53	6,150	116	50	5,712	114	47	4,913	105
Mississippi.....															
Pearl River.....	9	861	96	9	861	96	8	814	102	7	684	98	12	1,872	156
Louisiana.....	32	34,165	551	57	32,913	577	55	30,449	554	58	31,062	536	49	30,330	619
New Orleans.....	30	32,741	1,091	27	31,567	1,169	23	29,009	1,261	23	28,865	1,255	21	28,454	1,355
Teche.....	32	1,424	45	30	1,346	45	32	1,440	45	35	2,197	63	28	1,876	67
Texas.....	36	3,297	92	39	5,891	151	38	3,658	96	39	3,430	88	42	3,584	85
Galveston.....	31	2,865	92	34	5,459	161	31	2,801	90	32	2,573	80	35	2,728	78
Corpus Christi.....	2	158	79	2	158	79	2	158	79	2	158	79	2	158	79
Brazos de Santiago.....	3	274	91	3	274	91	3	274	91	3	274	91	3	274	91
Paso del Norte.....							2	425	213	2	425	213	2	424	212

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 31.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Tonnage.			Tonnage.			Tonnage.			Tonnage.			Tonnage.		
	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver- age.	Num- ber.	Total.	Aver- age.
Total.....	14,009	1,912,800	131	14,576	1,884,739	129	14,593	1,876,736	129	14,500	1,889,438	130	14,480	1,918,006	132
Maine.....	2,556	491,348	192	2,471	487,222	197	2,494	507,819	204	2,504	513,864	205	2,462	510,749	211
Passamaquoddy.....	156	18,803	101	179	17,676	99	176	17,803	101	179	17,075	95	171	15,557	91
Machias.....	172	19,190	112	151	14,414	95	162	14,325	88	176	16,647	95	187	20,792	111
Frenchman Bay.....	242	14,817	61	241	15,000	62	240	14,457	60	244	14,499	59	231	14,579	63
Castine.....	318	19,057	60	310	18,845	61	292	16,778	57	289	16,170	60	251	14,113	56
Bangor.....	167	26,129	156	152	24,829	163	160	26,095	163	159	24,942	157	170	26,719	157
Belfast.....	234	46,967	201	228	45,927	201	234	49,213	210	241	48,308	200	248	51,520	208
Waldoboro.....	411	82,871	202	394	82,652	210	403	90,067	223	403	92,661	230	368	83,533	227
Wiscasset.....	161	9,713	60	155	8,584	55	147	7,956	54	148	7,600	51	150	7,326	49
Bath.....	251	132,768	529	246	137,373	558	260	151,621	583	266	160,443	603	265	168,631	636
Portland and Falmouth.....	346	111,499	322	347	111,536	321	351	108,915	310	356	108,295	304	357	108,393	304
Saco.....	16	550	34	17	1,454	86	18	1,624	90	16	2,017	126	14	2,273	162
Kennebunk.....	43	8,673	202	39	8,559	219	39	8,614	221	36	4,864	135	38	5,917	156
York.....	9	311	35	12	373	31	12	351	29	11	343	31	12	396	33
New Hampshire: Portsmouth.....	69	9,482	137	67	9,592	143	58	8,791	152	58	8,649	149	63	10,196	162
Massachusetts.....	2,136	378,333	177	2,078	364,933	176	2,081	374,596	180	2,043	373,705	183	1,957	373,025	191
Newburyport.....	51	12,328	242	46	11,583	252	44	10,800	246	53	17,430	329	54	17,907	332
Gloucester.....	472	28,122	60	463	27,182	59	473	27,685	59	497	31,162	63	495	31,693	64
Salem and Beverly.....	64	5,840	91	61	5,395	88	61	5,247	86	45	4,017	89	38	1,741	46
Marblehead.....	61	2,419	40	52	1,775	34	56	1,947	35	48	2,540	53	42	2,777	66
Boston and Charlestown.....	719	237,882	331	715	227,638	318	733	237,122	323	677	224,730	332	657	227,456	346
Plymouth.....	49	2,499	51	46	2,119	46	39	1,912	49	44	2,357	54	45	2,408	54
Barnstable.....	339	30,066	89	315	27,817	88	322	30,171	94	331	32,729	99	312	30,936	99
Nantucket.....	12	228	19	13	279	21	13	243	19	15	314	21	17	475	28
Edgartown.....	24	1,540	64	24	1,895	79	23	1,439	63	24	1,362	57	26	1,572	60
New Bedford.....	250	41,875	168	245	40,923	167	220	39,480	179	220	38,442	175	196	34,650	177
Fall River.....	95	15,536	164	98	18,327	187	97	18,563	191	89	18,622	209	75	21,401	285
Rhode Island.....	241	16,568	69	248	17,048	69	255	19,900	78	233	18,305	79	232	19,812	85
Providence.....	95	12,112	127	104	12,236	118	115	15,104	131	109	14,426	132	105	14,415	137
Newport.....	123	3,303	27	119	3,188	27	113	3,044	27	97	2,840	29	100	3,724	37
Bristol and Warren.....	23	1,173	51	25	1,624	65	27	1,752	65	27	1,039	38	27	1,673	62
Connecticut.....	641	44,299	69	635	44,878	71	595	41,130	69	551	40,776	74	538	46,720	87
Stonington.....	115	6,640	58	109	7,076	65	99	6,894	70	87	5,129	59	91	5,089	56
New London.....	160	8,609	54	154	8,761	57	139	7,969	57	129	8,289	64	131	12,272	94
Middletown.....	77	7,508	98	70	6,799	97	66	6,323	96	60	6,043	101	59	6,274	106
New Haven.....	137	14,556	106	146	15,946	109	134	14,322	107	130	16,144	124	115	17,743	134
Fairfield.....	152	6,986	46	156	6,296	40	157	5,622	36	145	5,171	36	142	5,342	38
New York.....	2,754	560,556	204	2,759	545,282	198	2,679	530,150	198	2,671	516,599	193	2,709	523,123	193
New York.....	2,495	548,187	220	2,499	532,989	213	2,444	518,693	212	2,451	505,560	206	2,488	512,401	206
Sag Harbor.....	259	12,369	48	260	12,293	47	235	11,457	49	220	11,039	50	221	10,722	49
New Jersey.....	906	58,123	64	923	61,592	67	953	60,025	63	977	60,156	62	945	61,125	65
Newark.....	37	2,508	68	28	1,508	54	27	1,531	57	38	2,644	70	44	3,859	88
Perth Amboy.....	312	15,849	51	316	17,580	56	345	16,425	48	357	17,799	50	289	14,481	50
Little Egg Harbor.....	71	5,416	76	66	5,070	77	64	4,652	73	63	4,597	73	59	4,348	74
Great Egg Harbor.....	125	14,823	119	131	16,483	126	136	16,604	122	124	14,348	116	133	17,449	131
Bridgeton.....	311	16,004	51	335	17,545	52	337	17,610	52	350	17,533	50	373	17,718	48
Burlington.....	50	3,523	70	47	3,426	73	44	3,203	73	45	3,235	72	47	3,270	70
Pennsylvania: Philadelphia.....	643	132,089	205	637	133,967	210	587	125,179	213	582	137,270	236	574	138,731	242
Delaware: Delaware.....	159	12,128	76	153	11,950	78	144	12,304	85	156	13,744	88	157	13,648	87
Maryland.....	1,645	81,856	50	1,695	80,254	47	1,766	77,301	44	1,823	80,500	44	1,986	86,562	44
Baltimore.....	871	62,993	72	902	61,031	68	937	56,908	61	951	58,912	62	1,006	63,267	63
Annapolis.....	118	2,262	19	120	2,273	19	120	2,273	19	121	2,503	21	162	3,249	20
Eastern.....	656	16,601	25	673	16,950	25	709	18,120	26	751	19,085	25	816	20,046	25
District of Columbia: Georgetown.....	58	1,920	33	50	1,568	31	49	2,290	47	49	2,340	48	51	3,066	60

ATLANTIC COAST AND GULF OF MEXICO.

79

COMPARATIVE STATISTICS—Continued.

TABLE 31.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—Continued.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.
	Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.	
Virginia.....	1,061	26,640	25	1,092	25,291	23	1,152	28,610	25	1,126	29,887	27	1,078	32,558	30
Alexandria.....	87	3,191	37	88	2,872	33	75	2,955	39	72	3,044	42	74	5,346	73
Tappahannock.....	100	2,418	24	126	2,751	22	135	2,951	22	117	2,967	25	128	3,151	25
Yorktown.....	141	2,393	17	135	1,994	15	131	2,103	16	201	3,190	16	216	3,880	18
Richmond.....	21	3,515	167	37	3,768	102	37	4,250	115	45	5,371	119	45	5,817	129
Petersburg.....	1	16	16	1	190	190	3	262	87	1	13	13	1	7	7
Norfolk and Portsmouth.....	353	9,827	28	367	8,647	24	411	10,571	26	347	9,952	29	331	9,744	29
Cherrystone.....	358	5,280	15	338	5,069	15	360	5,518	15	343	5,341	16	283	4,573	16
North Carolina.....	289	9,158	32	296	11,731	39	280	8,654	31	285	10,087	35	290	11,753	41
Albemarle.....	55	938	17	51	954	19	47	861	18	39	617	16	42	646	15
Pamlico.....	100	2,245	22	107	2,243	21	106	2,172	20	111	2,522	23	101	2,104	21
Beaufort.....	70	1,090	16	65	1,059	16	67	1,158	17	72	1,214	17	84	1,462	17
Wilmington.....	64	4,870	76	75	7,475	100	60	4,463	74	63	5,734	91	63	7,543	120
South Carolina.....	173	5,017	29	178	5,241	29	182	5,703	31	174	7,198	41	171	5,493	32
Georgetown.....	5	389	78	3	375	125	7	742	106	9	1,511	168	10	1,547	155
Charleston.....	151	4,126	27	156	3,977	25	158	4,314	27	144	4,147	29	144	2,885	20
Beaufort.....	17	502	30	19	889	47	17	647	38	21	1,540	73	17	1,061	62
Georgia.....	86	9,354	109	95	10,398	109	82	9,976	122	78	13,035	167	87	16,004	184
Savannah.....	54	3,806	70	61	4,867	80	54	4,906	91	48	5,071	106	46	5,498	120
Brunswick.....	28	4,320	154	33	5,524	167	26	4,675	180	29	7,957	274	38	9,899	261
St. Mary.....	4	1,228	307	1	7	7	2	395	198	1	7	7	3	607	202
Florida.....	323	25,332	78	310	20,630	67	333	20,175	61	355	24,177	68	355	22,918	65
Fernandina.....	17	4,914	289	17	3,908	230	17	3,531	208	14	2,845	203	15	3,370	225
St. John.....	18	2,421	135	19	1,942	102	22	2,404	109	20	2,891	145	12	522	44
St. Augustine.....	1	33	33	2	46	23	4	67	17	4	257	64	6	301	50
Key West.....	141	3,839	27	134	3,388	25	142	3,500	25	142	3,369	24	139	2,680	19
St. Mark.....	23	1,726	75	13	1,186	91	34	2,619	77	40	2,976	74	38	931	25
Apalachicola.....	25	1,265	51	25	255	10	26	1,210	47	24	1,434	60	19	778	41
Pensacola.....	98	11,134	114	100	9,905	99	88	6,844	78	111	10,405	94	126	14,336	114
Alabama.....															
Mobile.....	73	7,937	109	80	9,338	117	94	9,228	98	90	7,481	76	80	4,521	57
Mississippi.....															
Pearl River.....	119	2,970	25	130	4,608	35	121	3,745	31	121	5,187	43	119	4,297	36
Louisiana.....	447	31,958	71	442	29,037	66	452	24,264	54	380	19,849	52	411	18,195	44
New Orleans.....	375	20,928	80	378	27,165	72	387	22,499	58	324	18,473	57	341	16,506	48
Teche.....	72	2,030	28	64	1,892	30	65	1,765	27	56	1,376	25	70	1,689	24
Texas.....	230	7,712	34	235	10,159	43	236	6,894	29	235	6,629	28	224	6,508	29
Galveston.....	154	5,749	37	159	7,865	49	154	4,092	27	163	4,876	30	151	4,749	31
Saluria.....	37	838	23	31	772	25	20	732	25	27	606	26	29	548	19
Corpus Christi.....	28	898	32	34	1,241	37	42	1,796	43	36	814	23	32	753	24
Brazos de Santiago.....	11	227	21	11	281	26	11	274	25	9	243	27	12	458	38

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 31.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total	14,354	1,860,058	130	13,937	1,742,766	125	13,652	1,665,070	122	13,459	1,584,309	118	13,336	1,525,315	114
Maine	2,356	464,510	197	2,271	434,824	191	2,127	392,025	184	2,088	376,441	180	1,908	341,693	174
Passamaquoddy	162	14,661	91	162	14,742	91	149	13,155	89	159	14,907	94	144	14,545	101
Machias	191	19,096	100	180	17,763	99	176	16,395	93	185	16,283	88	189	16,511	87
Frenchman Bay	221	13,702	62	234	15,509	66	222	13,272	60	219	13,766	63	214	14,042	66
Castine	250	14,458	58	231	13,024	56	231	12,738	55	240	13,582	57	249	13,588	55
Bangor	155	22,891	148	149	20,593	138	145	20,623	142	133	20,307	153	134	22,555	168
Belfast	251	47,591	190	230	41,263	179	185	33,424	181	168	31,237	186	147	25,433	173
Waldoboro	344	75,195	219	335	69,579	208	336	66,597	207	338	60,214	178	310	50,139	162
Wiscasset	148	7,105	48	139	7,511	54	129	8,267	64	114	6,845	60	98	6,178	64
Bath	231	141,277	612	228	136,139	597	216	124,582	577	216	125,637	582	183	101,820	556
Portland and Falmouth	343	102,610	299	326	93,026	285	286	75,208	263	267	69,294	260	265	73,193	276
Saco	16	2,152	135	16	1,960	123	15	1,399	93	14	1,079	77	9	643	71
Kennebunk	31	3,357	108	31	3,385	109	29	3,142	108	26	2,955	114	23	2,838	123
York	13	415	32	10	330	33	9	303	34	9	335	37	5	208	42
New Hampshire: Portsmouth	59	10,502	178	58	10,033	173	58	10,047	173	56	9,731	174	55	9,657	176
Massachusetts	1,002	370,925	195	1,834	361,794	197	1,718	341,769	199	1,695	337,101	199	1,621	306,749	189
Newburyport	46	16,109	352	48	15,585	325	25	12,265	491	25	11,771	471	17	8,536	502
Gloucester	504	33,734	67	486	32,955	68	472	32,322	68	460	32,395	70	453	33,261	73
Salem and Beverly	36	1,913	53	34	2,149	63	45	4,575	102	38	4,110	108	32	2,500	80
Marblehead	42	2,963	71	39	2,855	73	33	2,304	70	31	2,909	94	25	2,122	85
Boston and Charlestown	627	225,635	360	598	219,022	366	532	202,488	381	551	201,671	366	542	186,908	345
Plymouth	34	1,694	50	30	1,356	45	24	1,209	50	19	950	50	18	1,026	57
Barnstable	305	29,009	97	306	28,862	94	296	27,835	94	281	24,706	88	273	21,503	79
Nantucket	17	410	24	15	463	31	15	458	31	19	488	26	20	435	22
Edgartown	23	1,235	54	20	981	49	20	998	49	31	935	30	33	1,309	40
New Bedford	197	34,110	173	188	33,092	176	182	32,374	178	172	31,012	180	150	27,226	182
Fall River	71	23,453	330	70	24,474	350	74	24,953	337	68	26,148	385	58	21,843	377
Rhode Island	226	18,577	82	214	17,293	81	189	15,476	82	189	15,148	80	190	14,461	76
Providence	97	13,389	138	97	12,464	128	77	10,599	138	75	9,759	130	72	8,590	119
Newport	101	3,802	38	90	3,500	39	88	3,634	41	90	4,169	46	96	4,730	49
Bristol and Warren	28	1,386	50	27	1,329	49	24	1,243	52	24	1,280	53	22	1,141	52
Connecticut	522	45,960	88	504	47,418	94	488	49,368	101	483	54,212	112	457	52,277	114
Stonington	98	4,413	45	94	4,192	45	96	4,244	44	102	4,412	43	102	3,988	39
New London	123	11,821	96	121	12,360	102	124	13,565	109	119	15,058	127	114	15,607	137
Middletown	56	5,038	106	56	6,068	108									
Hartford							45	4,801	107	40	3,744	94	39	3,465	89
New Haven	110	18,080	164	103	19,229	187	98	21,560	220	103	25,271	245	92	23,951	260
Fairfield	135	5,708	42	130	5,569	43	125	5,198	42	119	5,727	48	110	5,266	48
New York	2,851	525,470	198	2,454	459,990	187	2,441	453,686	186	2,329	409,455	176	2,361	430,645	182
New York	2,437	513,908	211	2,250	449,223	200	2,230	442,840	199	2,112	400,191	189	2,167	422,664	195
Sag Harbor	214	11,562	54	204	10,767	53	211	10,846	51	217	9,264	43	194	7,981	41
New Jersey	924	61,491	67	958	59,949	63	942	59,358	63	979	58,346	60	997	57,547	58
Newark	31	2,046	66	37	3,134	85	39	2,905	74	34	2,757	81	34	2,894	85
Perth Amboy	282	14,988	53	286	14,490	51	279	15,265	55	293	14,512	50	307	14,688	48
Little Egg Harbor	59	4,294	73	50	3,950	79	47	3,905	83	43	2,993	70	42	2,679	64
Great Egg Harbor	129	17,458	135	127	16,327	129	132	16,787	127	151	17,227	114	165	17,837	108
Bridgeton	392	20,259	52	426	19,601	46	421	18,901	45	434	19,141	44	425	17,767	43
Burlington	31	2,446	79	32	2,447	76	24	1,595	66	24	1,716	72	24	1,682	70
Pennsylvania: Philadelphia	533	132,328	248	526	143,162	272	524	129,867	248	501	125,316	250	484	118,695	245
Delaware: Delaware	160	14,847	93	149	12,670	85	161	12,835	80	172	13,409	78	164	15,142	92
Maryland	2,098	91,261	43	2,054	88,240	43	2,056	84,648	41	1,988	82,424	41	2,010	76,744	38
Baltimore	1,083	68,090	63	1,058	66,001	62	1,034	62,517	60	997	61,346	62	990	55,425	54
Annapolis	159	3,068	19	129	2,832	22	148	3,109	21	144	3,115	22	154	3,309	21
Eastern	856	20,103	23	867	19,407	22	874	19,022	22	847	17,963	21	866	18,010	21
District of Columbia: Georgetown	41	1,099	27	35	937	27	41	1,301	32	47	2,283	49	71	2,996	42

COMPARATIVE STATISTICS—Continued.

TABLE 31.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880—1889 (SAILING VESSELS)—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Virginia	1,135	37,442	33	1,107	34,442	30	1,180	35,435	30	1,207	32,982	27	1,212	32,699	27
Alexandria.....	70	4,960	71	66	4,457	68	56	3,140	56	62	3,892	63	63	1,574	25
Tappahannock.....	145	3,846	27	143	3,883	27	140	3,608	26	134	3,429	26	139	3,620	26
Yorktown.....	211	3,582	17	209	3,469	17	219	5,907	27	219	5,732	26	209	5,091	24
Richmond.....	48	8,035	167	42	5,614	134	47	4,845	103	50	5,472	109	47	3,902	83
Petersburg.....	2	19	10	4	45	11	3	30	10	3	30	10	3	30	10
Norfolk and Portsmouth.....	350	12,020	34	367	11,372	31	379	12,209	32	385	8,620	22	396	12,878	33
Cherrystone.....	309	4,980	16	336	5,002	17	345	5,696	17	354	5,807	16	355	5,604	16
North Carolina.....	288	10,167	35	273	8,275	30	285	8,100	28	298	8,017	27	320	7,412	23
Albemarle.....	44	600	14	44	578	13	50	696	14	51	682	13	58	870	15
Pamlico.....	102	1,973	19	98	1,928	20	99	1,916	19	105	2,028	19	109	1,961	18
Beaufort.....	83	1,434	17	85	1,498	18	99	1,745	18	106	1,750	17	121	2,012	17
Wilmington.....	59	6,160	104	46	4,271	93	37	3,752	101	36	3,557	99	32	2,509	80
South Carolina.....	175	6,045	35	157	5,396	34	160	5,660	37	163	4,769	29	169	5,234	31
Georgetown.....	11	1,826	168	8	967	121	9	1,203	134	11	1,700	155	10	1,350	135
Charleston.....	149	3,919	26	134	3,609	27	141	4,448	32	135	2,713	20	140	3,156	23
Beaufort.....	15	300	20	15	829	55	10	209	21	17	356	21	19	728	38
Georgia.....	82	11,807	144	82	8,636	105	85	9,148	108	80	6,922	87	83	6,612	80
Savannah.....	52	4,509	87	56	3,125	56	57	2,119	37	54	2,582	48	58	2,161	37
Brunswick.....	28	6,753	241	23	4,628	201	26	6,484	246	24	4,022	168	24	4,426	185
St. Mary.....	2	545	273	3	883	294	2	545	273	2	318	159	1	23	24
Florida.....	370	27,920	74	376	21,281	57	390	25,117	63	406	20,037	49	400	17,632	44
Fernandina.....	14	3,202	220	12	2,920	243	13	3,519	271	14	3,975	284	12	2,939	245
St. John.....	24	2,784	116	23	1,035	84	19	2,497	131	24	1,730	72	27	1,854	69
St. Augustine.....	5	50	11	5	56	11	8	133	17	12	187	16	15	253	17
Key West.....	139	3,744	27	156	3,846	25	167	3,570	21	173	3,886	22	146	2,505	17
St. Mark.....	44	663	15	38	403	11	36	604	17	34	639	19	26	343	13
Apalachicola.....	25	368	15	28	610	22	28	2,264	81	27	1,909	74	25	1,632	65
Pensacola.....	128	17,103	134	114	11,511	101	125	12,550	100	122	7,612	62	124	7,870	63
Tampa.....													25	236	9
Alabama:															
Mobile.....	82	4,800	59	75	4,833	64	63	3,136	50	70	3,869	55	77	4,986	65
Mississippi:															
Pearl River.....	120	4,535	38	142	5,092	36	148	8,097	50	150	6,865	46	158	9,268	59
Louisiana.....	409	15,630	38	396	12,767	32	389	12,575	32	377	11,893	32	380	10,365	29
New Orleans.....	341	13,863	41	325	11,414	35	314	11,233	36	302	10,670	35	287	9,169	32
Teche.....	68	1,778	26	71	1,353	19	75	1,342	18	75	1,223	16	73	1,196	16
Texas.....	212	4,733	22	212	5,734	27	192	6,613	34	181	5,089	28	179	4,501	25
Galveston.....	147	3,572	24	151	4,335	29	147	5,414	37	142	4,404	31	138	3,800	28
Saluria.....	26	346	13	23	303	13	15	212	14	13	195	15	11	183	7
Corpus Christi.....	20	617	21	29	921	32	24	843	35	22	382	17	25	387	15
Brazos de Santiago.....	10	198	20	9	175	19	6	144	24	4	108	27	5	131	26

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 32.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (UNRIGGED CRAFT)—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total.....	621	113,247	181	649	123,376	190	772	144,586	187	772	150,271	195	740	145,826	197
Maine.....	2	406	203	2	406	203	3	973	324	3	973	324	2	718	359
Waldoboro.....	1	255	255	1	255	255	1	255	255	1	255	255			
Bath.....	1	151	151	1	151	151	2	718	359	2	718	359	2	718	359
Massachusetts.....	11	3,162	287	11	3,573	325	11	3,573	325	12	3,995	333	11	3,713	338
Newburyport.....	2	87	44	2	87	44	2	87	44	2	87	44	2	87	44
Fall River.....	9	3,075	342	9	3,486	387	9	3,486	387	10	3,908	391	9	3,626	403
Connecticut.....	73	8,396	115	85	11,885	140	154	23,214	151	179	27,996	156	171	26,861	157
New London.....	3	289	96	7	1,184	169	10	2,033	203	17	4,012	236	15	3,893	260
Middletown.....	4	641	160	14	2,937	210	10	3,853	203	20	4,098	205	19	3,789	199
New Haven.....	64	7,160	112	63	7,016	121	124	17,180	139	140	19,600	140	135	18,953	140
Fairfield.....	2	306	153	1	148	148	1	148	148	2	228	113	2	228	113
New York.....	405	81,765	202	411	83,837	204	435	87,107	200	443	88,384	200	455	91,497	201
New York.....	402	79,196	197	408	81,268	199	432	84,538	196	441	86,446	196	454	90,716	200
Sag Harbor.....	3	2,569	856	3	2,569	856	3	2,569	856	2	1,938	969	1	781	781
New Jersey.....	68	11,690	172	80	15,807	198	106	21,204	200	89	21,381	240	48	14,047	293
Perth Amboy.....	61	10,061	175	73	14,778	202	99	20,175	204	82	20,352	248	48	14,047	293
Burlington.....	7	1,029	147	7	1,029	147	7	1,029	147	7	1,029	147			
Pennsylvania: Philadelphia.....	29	4,822	166	30	5,264	175	20	5,216	180	29	5,216	180	31	6,100	197
Delaware: Delaware.....	2	117	59				2	596	298						
Maryland.....	4	423	106	3	249	83	3	249	83	4	1,177	294	8	1,812	227
Baltimore.....	4	423	106	3	249	83	3	249	83	4	1,177	294	8	1,812	227
Eastern.....															
Virginia.....	3	199	66	2	156	78	2	156	78						
Yorktown.....	1	43	43												
Richmond.....	2	156	78	2	156	78	2	156	78						
South Carolina: Beaufort.....	1	51	51												
Alabama: Mobile.....	4	349	87	4	349	87	4	174	44	10	414	41	10	414	41
Mississippi: Pearl River.....	18	1,180	66	19	1,263	66	19	1,263	66						
Louisiana: Teche.....	2	100	50												
Texas.....	2	587	294	2	587	294	4	861	215	3	735	245	4	664	166
Galveston.....	2	537	294	2	587	294	4	861	215	3	735	245	2	441	221
Corpus Christi.....													2	223	112

COMPARATIVE STATISTICS—Continued.

TABLE 32.—AGGREGATES AND AVERAGES FOR THE 10 YEARS 1880-1889 (UNRIGGED CRAFT)—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total.....	746	148,289	199	763	153,380	201	697	156,414	224	958	217,616	227	1,000	231,422	231
Maine.....	2	822	411	4	2,272	568	8	4,418	552	13	10,292	792	12	10,109	842
Machias.....							1	122	122				1	238	238
Bangor.....							1	238	238	1	238	238			
Waldoboro.....	1	255	255												
Bath.....	1	567	567	4	2,272	568	6	4,058	676	12	10,054	838	11	9,871	897
Massachusetts.....	10	2,971	297	11	3,751	341	15	8,164	544	26	18,977	730	33	23,968	726
Newburyport.....	2	87	44	2	87	44	2	87	44	2	87	44	2	87	44
Gloucester.....										1	122	122	1	122	122
Boston and Charlestown.....							4	4,362	1,091	14	15,053	1,075	20	19,010	981
Fall River.....	8	2,884	361	9	3,664	407	9	3,715	413	9	3,715	413	10	4,149	415
Rhode Island: Providence.....				2	689	345	3	1,046	349	3	1,046	349	3	1,046	349
Connecticut.....	163	25,895	159	161	25,841	161	38	9,059	238	163	26,809	164	171	28,950	169
Stonington.....													1	482	482
New London.....	15	8,839	256	15	4,002	267	17	4,902	288	18	5,207	289	20	5,571	279
Middletown.....	20	3,984	199	21	4,133	197									
New Haven.....	126	17,846	142	124	17,558	142				121	16,828	139	124	17,984	145
Fairfield.....	2	226	113	1	148	148	2	297	149	4	570	143	4	570	143
Hartford.....							19	3,860	203	20	4,204	210	22	4,343	197
New York.....	466	94,188	202	477	95,042	199	515	103,270	201	621	126,277	203	632	130,237	206
New York.....	465	93,467	201	476	94,261	198	514	102,489	199	620	125,496	202	631	129,455	205
Sag Harbor.....	1	781	781	1	781	781	1	781	781	1	781	781	1	782	782
New Jersey.....	48	13,954	291	50	14,409	288	54	16,406	304	63	20,463	325	71	21,952	309
Perth Amboy.....	48	13,954	291	50	14,409	288	54	16,406	304	63	20,463	325	70	21,802	311
Burlington.....													1	150	150
Pennsylvania: Philadelphia.....	32	6,093	209	33	7,301	221	34	8,513	250	31	7,384	238	46	11,137	242
Maryland.....	9	2,208	245	9	2,208	245	9	2,207	245	17	3,241	191	16	2,338	146
Baltimore.....	9	2,208	245	9	2,208	245	9	2,207	245	17	3,241	191	10	1,391	139
Eastern.....													6	947	158
District of Columbia: Georgetown.....	1	508	508	1	508	508	2	742	371						
Virginia.....							1	815	815	1	71	71	1	71	71
Yorktown.....							1	815	815						
Tappahannock.....										1	71	71	1	71	71
Georgia: Savannah.....										2	1,177	589	1	9	9
Florida: St. Mark.....							1	32	32						
Alabama: Mobile.....	11	460	42	8	326	41	9	538	60	9	538	60	6	413	69
Texas.....	4	590	148	7	1,033	148	8	1,204	151	9	1,341	149	8	1,192	149
Galveston.....	2	367	184	5	810	162	6	981	164	6	981	164	5	833	167
Corpus Christi.....	2	223	112	2	223	112	2	223	112	2	223	112	2	223	112
Paso del Norte.....										1	137	137	1	136	136

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 33.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Maine:																
Passamaquoddy.....	180	1880	197	1889	157	1885	180	40	20,212	1880	23,510	1887	17,802	1883	20,291	5,708
Machias.....	182	1885	196	1881	155	1883	181	41	17,265	1884	20,952	1882	14,400	1883	16,737	6,532
Frenchman Bay.....	237	1883	250	1889	220	1884	236	24	14,067	1886	16,003	1887	13,743	1884	14,704	2,260
Castine.....	206	1880	319	1887	233	1883	270	86	15,267	1880	19,082	1887	12,768	1885	14,483	6,214
Bangor.....	163	1884	182	1888	144	1886	161	38	24,362	1884	27,525	1888	21,281	1889	23,895	6,244
Belfast.....	219	1885	255	1889	148	1881	230	107	42,197	1884	51,677	1889	25,408	1886	41,355	26,209
Waldoboro.....	370	1880	421	1889	316	1884	372	105	76,703	1883	93,709	1889	50,987	1885	76,588	42,722
Wiscasset.....	141	1880	164	1889	97	1886	141	67	7,807	1880	9,851	1889	6,228	1883	7,684	3,623
Bath.....	268	1884	299	1889	224	1881	272	75	144,818	1884	173,749	1889	117,415	1885	145,374	56,334
Portland and Falmouth.....	355	1884	387	1889	301	1886	365	86	105,833	1884	119,900	1888	79,865	1886	105,306	40,035
Saco.....	18	1882	21	1889	11	1880	18	10	1,721	1884	2,504	1889	655	1887	1,597	1,849
Kennebunk.....	34	1880	43	1889	24	1886	32	19	5,239	1880	8,673	1889	2,864	1883	4,864	5,809
York.....	10	1885	13	1889	5	1886	10	8	337	1885	415	1889	208	1888	335	207
New Hampshire:																
Portsmouth.....	67	1880	74	1889	63	1883	66	11	10,017	1885	10,891	1882	9,045	1889	10,057	1,846
Massachusetts:																
Newburyport.....	57	1884	72	1889	28	1882	61	44	14,322	1884	18,910	1889	9,091	1880	13,188	9,819
Gloucester.....	484	1885	510	1889	462	1887	470	48	31,273	1885	33,943	1881	27,302	1883	31,342	6,641
Salem and Beverly.....	49	1880	68	1889	36	1883	48	32	3,917	1880	6,631	1884	1,772	1883	4,060	4,879
Marblehead.....	44	1880	61	1889	28	1885	44	33	2,491	1885	3,056	1881	1,791	1883	2,540	1,215
Boston and Charlestown.....	742	1882	835	1887	628	1885	723	207	261,030	1885	297,805	1887	249,864	1883	261,424	17,941
Plymouth.....	36	1880	51	1889	19	1885	35	32	2,055	1880	2,963	1888	1,300	1882	2,071	1,663
Barnstable.....	309	1880	340	1889	275	1886	307	65	28,458	1883	32,736	1889	21,017	1886	28,968	11,119
Nantucket.....	17	1889	20	1887	15	1883	17	5	1,077	1884	1,537	1883	435	1886	1,041	1,102
Edgartown.....	25	1889	34	1886	20	1881	25	14	1,328	1881	1,936	1888	935	1889	1,325	971
New Bedford.....	215	1880	265	1889	162	1885	209	103	38,338	1880	44,838	1889	31,349	1884	36,979	13,489
Fall River.....	109	1881	125	1889	89	1884	106	36	45,495	1888	54,064	1880	34,663	1883	44,817	18,401
Rhode Island:																
Providence.....	126	1882	144	1888	108	1885	127	36	32,882	1882	37,544	1888	28,705	1885	32,881	8,839
Bristol and Warren.....	31	1882	36	1887	27	1880	31	9	1,549	1882	2,039	1883	1,224	1885	1,511	815
Newport.....	118	1880	144	1886	104	1889	118	40	5,547	1889	7,421	1883	4,562	1885	5,394	2,859
Connecticut:																
Stonington.....	103	1880	124	1883	99	1885	100	25	6,652	1881	8,263	1889	5,204	1885	6,669	3,659
New London.....	184	1880	200	1886	172	1882	185	28	31,043	1889	38,807	1880	22,232	1885	31,881	16,575
Middletown.....	100	1880	106	1885	94	1883	99	12	14,442	1881	15,404	1880	14,066	1882	14,501	1,338
Hartford.....	83	1887	85	1889	81	1882	82	4	12,002	1887	12,623	1889	11,313	1888	12,071	1,310
New Haven.....	261	1883	312	1887	146	1889	268	166	40,791	1888	51,613	1880	28,178	1882	38,550	23,435
Fairfield.....	169	1882	176	1889	164	1881	170	12	10,955	1889	13,532	1882	9,222	1885	11,264	4,310
New York:																
New York.....	3,837	1884	3,986	1880	3,721	1882	3,840	265	926,129	1885	971,485	1888	895,481	1889	925,015	76,004
Sag Harbor.....	253	1881	294	1889	218	1883	250	76	14,746	1881	17,209	1889	11,493	1885	14,660	5,716
New Jersey:																
Newark.....	68	1884	79	1881	58	1888	68	21	5,983	1884	7,369	1881	4,485	1883	6,002	2,864
Perth Amboy.....	425	1882	517	1885	374	1889	423	143	41,198	1882	48,648	1886	36,197	1888	42,190	12,451
Little Egg Harbor.....	58	1880	72	1888	43	1884	60	29	4,301	1880	5,583	1889	2,731	1884	4,396	2,852
Great Egg Harbor.....	140	1880	169	1883	127	1882	139	42	16,813	1889	18,123	1883	14,530	1886	16,788	3,595
Bridgeton.....	385	1888	458	1880	314	1884	378	124	18,607	1885	21,087	1880	16,153	1889	18,162	4,934
Burlington.....	55	1880	75	1887	36	1884	66	39	5,800	1880	8,923	1887	2,758	1884	7,526	6,165
Pennsylvania:																
Philadelphia.....	866	1880	941	1888	796	1885	842	145	213,102	1886	225,300	1889	203,027	1887	215,450	22,273
Delaware:																
Delaware.....	183	1888	202	1882	165	1880	182	37	17,645	1885	19,946	1881	16,090	1888	17,616	3,866
Maryland:																
Baltimore.....	1,147	1885	1,262	1880	1,013	1889	1,163	249	112,709	1885	123,493	1881	99,739	1889	114,037	23,754
Annapolis.....	138	1884	162	1880	118	1888	144	44	2,836	1889	3,309	1880	2,262	1886	2,938	1,047
Eastern.....	795	1887	878	1880	657	1884	818	221	18,824	1885	20,172	1880	16,020	1882	18,428	3,532
District of Columbia:																
Georgetown.....	84	1889	108	1886	67	1883	84	41	10,437	1889	11,741	1880	8,771	1882	10,568	2,970
Virginia:																
Alexandria.....	83	1881	100	1887	66	1883	84	34	4,115	1884	5,952	1889	2,069	1880	3,945	3,893
Tappahannock.....	135	1885	148	1880	102	1881	130	46	3,517	1886	4,053	1880	2,069	1884	3,243	1,384
Yorktown.....	192	1887	224	1882	131	1883	202	93	4,220	1887	7,534	1881	1,994	1886	4,289	5,549
Richmond.....	60	1888	66	1880	39	1882	59	27	6,095	1885	10,017	1880	4,657	1886	6,641	5,390
Petersburg.....	5	1886	8	1880	3	1883	5	5	179	1882	278	1880	1	1883	175	231
Norfolk and Portsmouth.....	430	1882	478	1884	397	1881	426	81	15,806	1889	18,976	1881	13,326	1882	16,041	5,650
Cherrystone.....	341	1882	362	1884	285	1881	338	77	5,504	1889	6,310	1884	4,592	1882	5,537	1,719
North Carolina:																
Albemarle.....	75	1889	91	1883	64	1880	76	27	2,940	1889	3,321	1883	2,746	1886	2,883	53
Panlico.....	110	1889	132	1880	106	1882	118	26	3,056	1883	3,454	1880	2,620	1882	3,033	85
Beaufort.....	87	1889	124	1881	65	1885	87	59	1,532	1889	2,166	1881	1,059	1886	1,597	1,107
Wilmington.....	69	1881	89	1889	51	1885	75	38	6,496	1884	9,469	1889	4,079	1882	6,289	5,390
South Carolina:																
Georgetown.....	20	1888	24	1881	11	1884	21	13	1,908	1885	2,679	1881	595	1886	1,939	2,084
Charleston.....	177	1882	189	1880	160	1884	177	29	8,920	1881	10,057	1888	7,719	1882	8,572	2,339
Beaufort.....	24	1889	30	1885	21	1886	24	9	1,173	1883	1,853	1885	709	1881	1,085	1,144

COMPARATIVE STATISTICS—Continued.

TABLE 33.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Georgia:																
Savannah.....	84	1889	93	1880	72	1881	81	21	23,394	1884	27,777	1880	14,310	1887	23,806	13,407
Brunswick.....	43	1884	50	1883	37	1887	43	13	7,357	1884	10,832	1880	5,286	1881	6,896	5,546
St. Mary.....	4	1880	7	1881	3	1882	4	4	545	1880	1,522	1889	75	1885	579	1,447
Florida:																
Fernandina.....	17	1881	20	1887	14	1884	17	6	3,765	1880	4,938	1880	3,120	1884	3,725	1,818
St. John.....	58	1886	75	1884	12	1882	59	63	5,249	1887	7,309	1884	522	1882	5,259	6,787
St. Augustine.....	9	1889	23	1880	2	1885	8	21	285	1888	578	1880	60	1884	301	518
Key West.....	162	1888	195	1881	143	1889	155	52	6,572	1886	7,851	1889	4,172	1882	6,462	3,679
St. Mark.....	41	1885	53	1881	20	1882	42	33	1,747	1883	3,179	1889	715	1881	1,598	2,464
Apalachicola.....	36	1888	42	1884	30	1882	35	12	2,541	1887	3,053	1881	1,412	1880	2,504	2,241
Pensacola.....	133	1887	147	1882	107	1880	133	40	12,583	1885	18,546	1888	8,927	1880	12,289	9,619
Tampa.....	37					1889	37		920					1889	929	
Alabama:																
Mobile.....	134	1883	154	1880	121	1880	132	33	12,458	1882	16,011	1887	9,824	1883	13,676	6,787
Mississippi:																
Pearl River.....	150	1889	170	1885	129	1886	151	41	6,847	1889	11,140	1880	4,966	1881	6,527	6,174
Louisiana:																
New Orleans.....	362	1882	411	1880	308	1884	368	103	46,751	1880	57,848	1889	37,623	1885	46,604	20,225
Teche.....	99	1888	110	1883	84	1885	100	26	3,106	1880	3,777	1886	2,699	1885	3,200	1,078
Texas:																
Galveston.....	187	1883	197	1889	178	1884	186	19	8,873	1881	12,465	1885	6,804	1887	9,196	5,661
Saluria.....	24	1880	37	1889	11	1886	23	26	483	1880	838	1889	183	1884	548	655
Corpus Christi.....	33	1882	43	1888	26	1885	33	17	1,121	1882	1,908	1888	763	1884	1,134	1,145
Brazos de Santiago.....	12	1884	16	1888	7	1883	12	9	667	1880	1,222	1888	382	1883	691	840
Paso del Norte.....	3			1887	2	1888	3	1	516	1888	562	1887	425	1889	560	137

TABLE 34.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (STEAMERS)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL STEAMERS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Maine:																
Passamaquoddy.....	13	1885	18	1880	11	1883	13	7	4,320	1888	5,040	1883	3,216	1884	4,416	1,824
Machias.....	5	1884	7	1880	4	1883	5	3	111	1880	185	1882	75	1889	109	90
Frenchman Bay.....	6	1888	13	1880	1	1883	6	12	308	1888	740	1880	32	1885	218	708
Castine.....	2	1886	3	1880	1	1887	2	2	35	1889	78	1880	25	1887	30	53
Bangor.....	10	1889	13	1880	7	1888	10	6	722	1889	1,102	1882	404	1887	726	698
Belfast.....	3	1883	4	1889	1	1882	3	3	109	1883	157	1889	35	1880	97	122
Waldoboro.....	6	1880	9	1883	4	1888	6	5	925	1884	1,138	1883	793	1880	891	345
Wiscasset.....	2	1880	3	1887	1	1882	2	2	109	1888	220	1889	50	1885	106	179
Bath.....	27	1884	32	1880	22	1882	27	10	3,864	1889	5,724	1881	3,019	1888	4,165	2,705
Portland and Falmouth.....	31	1886	39	1881	22	1884	30	17	9,636	1886	12,280	1881	6,699	1887	9,306	5,581
Saco.....	3	1883	4	1880	2	1882	3	2	206	1883	303	1880	105	1887	198	198
Kennebunk.....	1					1886	1		21	1888	26	1886	15	1889	26	11
New Hampshire:																
Portsmouth.....	7	1888	9	1880	5	1881	7	4	349	1888	418	1880	206	1884	378	212
Massachusetts:																
Newburyport.....	14	1881	16	1889	9	1886	14	7	796	1884	916	1889	468	1887	801	448
Gloucester.....	6	1886	8	1884	1	1881	6	7	196	1888	311	1884	60	1885	209	242
Salem and Beverly.....	4	1887	6	1881	1	1880	4	5	162	1880	811	1881	14	1886	170	797
Marblehead.....	2	1880	3	1881	1	1885	2	2	42	1885	73	1886	11	1887	49	62
Boston and Charlestown.....	103	1884	132	1881	88	1882	102	44	38,072	1889	50,533	1881	25,913	1883	36,694	24,620
Plymouth.....	1	1880	2			1881	1	1	335	1880	464	1882	159	1883	344	305
Barnstable.....	1	1889	2			1880	1	1	58	1889	114	1883	7	1886	46	107
Nantucket.....	2	1880	4	1886	1	1883	2	3	998	1880	1,080	1886	578	1883	1,062	502
Edgartown.....	1					1889	1		14	1889	16	1881	11	1889	16	5
New Bedford.....	13	1887	16	1881	11	1883	13	5	3,021	1889	4,123	1881	2,308	1880	2,963	1,815
Fall River.....	20	1883	22	1881	18	1880	20	4	20,593	1889	24,443	1881	16,051	1885	21,802	8,392
Rhode Island:																
Providence.....	31	1884	37	1881	27	1880	30	10	20,190	1882	22,440	1887	17,848	1884	19,889	4,592
Newport.....	17	1889	22	1885	11	1881	17	11	1,960	1889	2,691	1884	1,580	1880	1,968	1,111
Bristol and Warren.....	6	1881	10	1885	3	1883	6	7	185	1882	287	1885	125	1883	185	162
Connecticut:																
Stonington.....	10	1883	12	1888	7	1887	10	5	1,397	1885	2,256	1889	736	1884	1,376	1,520
New London.....	39	1884	46	1882	36	1885	38	10	16,118	1888	17,866	1880	13,334	1886	16,106	4,532
Middletown.....	20	1880	25	1885	18	1882	19	7	4,672	1880	5,917	1886	3,887	1883	4,445	2,030
New Haven.....	42	1888	53	1880	25	1883	42	28	8,032	1888	9,514	1880	6,462	1883	7,731	3,052
Fairfield.....	30	1889	50	1880	12	1884	28	38	4,980	1889	7,696	1880	3,171	1884	4,957	4,525
Hartford.....	21	1888	22	1889	20	1887	21	2	3,863	1888	4,123	1889	3,505	1887	3,962	618

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 34.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
New York:																
New York	995	1889	1,076	1880	824	1883	978	252	344,736	1889	372,896	1880	290,674	1883	336,327	82,227
Sag Harbor	28	1882	33	1880	23	1883	28	10	2,483	1887	3,024	1880	1,955	1882	2,547	1,069
New Jersey:																
Newark	33	1889	36	1880	27	1886	34	9	3,404	1887	3,761	1880	2,808	1882	3,450	953
Perth Amboy	53	1882	73	1886	40	1884	48	33	8,887	1882	12,048	1888	7,215	1884	8,178	4,838
Little Egg Harbor	2	1885	3	1880	1	1882	2	2	123	1882	215	1887	42	1880	167	173
Great Egg Harbor	4	1887	7	1880	2	1881	4	5	278	1888	553	1880	36	1889	286	517
Bridgeton	4	1885	7	1880	3	1883	4	4	400	1885	828	1880	149	1888	395	679
Burlington	15	1883	20	1886	11	1881	17	9	2,719	1880	4,371	1889	1,064	1881	4,221	3,307
Pennsylvania:																
Philadelphia	274	1883	289	1888	264	1885	277	25	74,767	1883	79,022	1881	70,337	1886	74,837	8,685
Delaware:																
Delaware	25	1889	31	1882	19	1884	25	12	4,306	1884	6,291	1887	3,547	1888	4,207	2,744
Maryland:																
Baltimore	157	1884	172	1880	138	1887	157	34	49,543	1889	57,221	1881	38,450	1884	50,391	18,762
Annapolis	1	1885	4	1880	1	1883	1	5	91	1885	106	1883	45	1880	106	61
Eastern	3	1889	6	1880	1	1882	3	5	198	1889	444	1880	19	1886	208	425
District of Columbia:																
Georgetown	34	1881	38	1885	30	1887	34	8	8,281	1887	9,054	1880	6,851	1882	8,278	2,203
Virginia:																
Alexandria	12	1884	14	1886	10	1880	12	4	568	1881	756	1887	428	1884	566	828
Tappahannock	4	1882	5	1880	2	1881	4	3	240	1881	356	1884	92	1880	251	264
Yorktown	3	1886	4	1883	1	1884	3	3	571	1889	1,195	1883	57	1888	785	1,138
Richmond	17	1882	20	1885	15	1889	17	5	1,589	1884	2,091	1880	986	1888	1,304	1,105
Petersburg	3	1883	4	1882	1	1881	3	3	115	1884	210	1882	16	1881	74	194
Norfolk and Portsmouth	61	1889	70	1880	54	1883	63	16	5,222	1889	6,098	1881	4,679	1887	5,167	1,419
Cherrystone	3	1889	7	1882	2	1887	3	5	196	1880	706	1882	19	1887	196	687
North Carolina:																
Albemarle	27	1889	33	1880	21	1882	27	12	2,196	1888	2,461	1880	1,835	1885	2,194	626
Pamlico	15	1889	23	1880	6	1885	16	17	947	1889	1,424	1880	384	1883	932	1,040
Beaufort	2	1885	4	1883	1	1884	2	3	127	1885	197	1883	33	1884	152	164
Wilmington	16	1884	19	1886	13	1885	16	6	1,456	1884	1,926	1887	1,041	1881	1,438	865
South Carolina:																
Georgetown	12	1880	14	1881	8	1885	12	6	747	1889	1,017	1881	220	1883	706	797
Charleston	32	1885	34	1886	26	1881	32	8	5,191	1881	6,080	1882	4,258	1889	5,222	1,822
Beaufort	7	1887	11	1880	4	1884	6	7	462	1887	743	1881	196	1884	409	547
Georgia:																
Savannah	29	1885	36	1880	18	1883	31	18	19,411	1885	22,652	1880	10,504	1883	20,085	12,148
Brunswick	15	1889	25	1883	8	1881	14	17	1,488	1889	3,653	1883	691	1881	1,372	2,962
St. Mary	2	1880	3	1884	1	1881	2	2	90	1880	294	1884	34	1881	115	260
Florida:																
Fernandina	2	1881	3	1880	1	1882	2	2	252	1881	408	1880	24	1882	322	384
St. John	41	1886	52	1880	29	1887	41	23	8,500	1888	5,204	1881	2,024	1885	3,574	3,180
St. Augustine	4	1888	8	1880	1	1885	3	7	209	1888	391	1880	27	1889	194	364
Key West	14	1888	22	1881	9	1885	15	13	8,139	1886	4,005	1889	1,667	1880	3,243	2,338
St. Mark	8	1886	10	1883	5	1882	8	5	535	1885	919	1883	203	1884	563	716
Apalachicola	11	1888	15	1881	6	1884	11	9	1,360	1888	1,033	1881	1,157	1889	1,383	476
Pensacola	20	1889	23	1880	16	1881	20	7	1,658	1884	2,316	1880	1,155	1883	1,704	1,161
Tampa	12								693							
Alabama:																
Mobile	48	1887	53	1884	41	1889	47	12	6,048	1882	7,209	1889	4,913	1887	6,150	2,296
Mississippi:																
Pearl River	11	1882	18	1888	7	1880	12	11	960	1889	1,872	1881	656	1884	919	1,216
Louisiana:																
New Orleans	24	1885	30	1880	21	1882	24	9	29,659	1885	32,741	1882	27,442	1887	20,009	5,299
Teche	30	1888	35	1881	26	1886	30	9	1,592	1888	2,197	1882	1,189	1883	1,570	1,008
Texas:																
Galveston	32	1889	35	1880	28	1888	32	7	3,269	1886	5,459	1888	2,573	1882	3,149	2,886
Corpus Christi	2	1883	2	1882	1	1884	2	1	152	1883	158	1882	112	1884	158	48
Brazos de Santiago	3	1880	4			1882	3	1	444	1880	995	1885	274	1882	448	721
Paso del Norte	2					1887	2		425			1889	424	1888	425	1

COMPARATIVE STATISTICS—Continued.

TABLE 25.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Maine:																
Passamaquoddy.....	167	1880	186	1889	144	1884	171	42	15,892	1880	18,803	1887	13,155	1884	15,557	5,649
Machias.....	177	1885	191	1881	151	1883	170	40	17,142	1884	20,792	1882	14,325	1883	16,647	6,467
Frenchman Bay.....	231	1883	244	1889	214	1884	231	30	14,359	1886	15,509	1887	13,222	1882	14,457	2,287
Castine.....	284	1880	318	1886	231	1883	269	87	15,215	1880	19,057	1887	12,738	1885	14,458	6,319
Bangor.....	152	1884	170	1888	133	1881	152	37	23,568	1884	26,719	1888	20,307	1885	22,891	6,412
Belfast.....	217	1885	251	1889	147	1881	228	104	42,088	1884	51,520	1889	25,433	1886	41,263	26,087
Waldoboro.....	364	1880	411	1889	310	1881	368	101	75,651	1883	92,661	1889	50,139	1885	75,195	42,522
Wiscasset.....	130	1880	161	1889	96	1880	139	65	7,709	1880	9,713	1889	6,178	1883	7,600	3,535
Bath.....	236	1883	266	1889	183	1885	231	83	188,026	1884	168,631	1889	101,820	1881	137,373	66,811
Portland and Falmouth.....	324	1884	357	1889	265	1886	326	92	96,197	1881	111,536	1888	69,294	1886	93,026	42,242
Saco.....	15	1882	18	1889	9	1887	15	9	1,515	1884	2,273	1880	550	1881	1,454	1,723
Kennebunk.....	34	1880	43	1889	23	1883	30	20	5,230	1880	8,673	1889	2,838	1883	4,664	5,835
York.....	10	1885	13	1889	5	1896	10	8	337	1885	415	1889	208	1886	335	207
New Hampshire:																
Portsmouth.....	60	1880	60	1880	55	1885	59	14	9,668	1885	10,502	1883	8,649	1889	9,057	1,853
Massachusetts:																
Newburyport.....	41	1884	54	1889	17	1882	44	37	13,438	1884	17,907	1889	8,536	1880	12,328	9,371
Gloucester.....	478	1885	504	1889	453	1882	473	51	31,053	1885	33,734	1881	27,182	1883	31,162	6,552
Salem and Beverly.....	45	1880	64	1889	32	1883	45	32	3,755	1880	5,840	1884	1,741	1883	4,017	4,099
Marblehead.....	43	1880	61	1889	25	1884	42	36	2,461	1885	2,963	1881	1,775	1880	2,419	1,188
Boston and Charlestown.....	635	1882	733	1887	532	1885	627	201	219,055	1880	237,882	1889	186,908	1886	219,022	50,974
Plymouth.....	35	1880	49	1889	18	1885	34	31	1,754	1880	2,490	1888	656	1885	1,694	1,543
Barnstable.....	308	1880	339	1889	273	1880	306	66	28,423	1883	32,720	1889	21,503	1886	28,862	11,226
Nantucket.....	16	1889	20	1880	12	1883	15	8	379	1888	448	1880	226	1885	410	292
Edgartown.....	25	1889	33	1886	20	1880	24	13	1,325	1881	1,895	1888	935	1889	1,300	960
New Bedford.....	202	1880	250	1889	150	1885	197	100	35,317	1880	41,875	1889	27,226	1884	34,659	14,649
Fall River.....	80	1881	98	1889	58	1884	75	40	21,332	1888	26,148	1880	15,536	1884	21,401	10,612
Rhode Island:																
Providence.....	95	1882	115	1889	72	1880	95	43	12,309	1882	15,104	1889	8,590	1881	12,238	6,514
Newport.....	102	1880	123	1887	88	1885	101	35	3,587	1889	4,730	1883	2,840	1887	3,634	1,860
Bristol and Warren.....	25	1885	28	1889	22	1881	25	6	1,364	1882	1,752	1883	1,039	1885	1,386	713
Connecticut:																
Stonington.....	99	1880	115	1883	87	1882	99	28	5,208	1881	7,076	1889	3,988	1883	5,129	3,088
New London.....	131	1880	160	1889	114	1884	131	46	11,431	1889	15,607	1882	7,969	1885	11,821	7,038
Middletown.....	63	1880	77	1885	56	1882	66	21	0,422	1880	7,508	1885	5,938	1882	6,323	1,570
Hartford.....	41	1887	45	1889	39	1888	40	6	4,003	1887	4,801	1889	3,465	1888	3,744	1,356
New Haven.....	117	1881	146	1880	92	1884	115	54	18,680	1888	23,271	1882	14,322	1886	19,259	10,949
Fairfield.....	137	1882	157	1889	110	1885	135	47	5,689	1880	6,986	1883	5,171	1885	5,708	1,815
New York:																
New York.....	2,357	1881	2,499	1888	2,112	1885	2,437	387	484,666	1880	548,187	1888	400,191	1883	505,560	147,996
Sag Harbor.....	224	1881	260	1889	194	1884	221	66	10,830	1880	12,369	1889	7,981	1887	10,846	4,388
New Jersey:																
Newark.....	35	1884	44	1882	27	1888	34	17	2,579	1884	3,859	1881	1,508	1883	2,644	2,351
Perth Amboy.....	307	1883	357	1887	279	1889	307	78	15,606	1883	17,799	1884	14,481	1880	15,849	3,318
Little Egg Harbor.....	56	1880	71	1880	42	1884	59	29	4,190	1880	5,416	1889	2,679	1885	4,294	2,737
Great Egg Harbor.....	135	1889	165	1883	124	1882	136	41	16,534	1889	17,837	1883	14,348	1881	16,483	3,489
Bridgeton.....	380	1888	434	1880	311	1884	373	123	18,208	1885	20,259	1880	16,004	1889	17,767	4,255
Burlington.....	37	1880	50	1887	24	1886	32	26	2,654	1880	3,523	1887	1,585	1886	2,447	1,928
Pennsylvania:																
Philadelphia.....	559	1880	643	1889	484	1884	574	150	131,060	1886	143,162	1889	118,695	1880	132,089	24,467
Delaware:																
Delaware.....	158	1888	172	1882	144	1884	157	28	13,268	1889	15,142	1881	11,950	1888	13,409	3,192
Maryland:																
Baltimore.....	983	1885	1,083	1880	871	1889	990	212	61,049	1885	68,090	1889	55,425	1888	61,346	12,665
Annapolis.....	138	1884	162	1880	118	1888	144	44	2,799	1889	3,309	1880	2,262	1886	2,832	1,047
Eastern.....	792	1887	874	1880	656	1884	816	218	18,531	1885	20,103	1880	16,601	1882	18,120	3,502
District of Columbia:																
Georgetown.....	49	1880	71	1886	35	1882	49	36	1,980	1884	3,066	1886	937	1880	1,920	2,129
Virginia:																
Alexandria.....	71	1881	88	1887	56	1883	72	32	3,547	1884	5,306	1889	1,574	1888	3,892	3,812
Tappahannock.....	131	1885	145	1880	100	1884	128	45	3,262	1886	3,883	1880	2,418	1884	3,151	1,465
Yorktown.....	189	1887	219	1882	131	1883	201	88	3,735	1887	5,907	1881	1,904	1884	3,880	8,013
Richmond.....	42	1888	50	1880	21	1886	42	29	5,059	1885	8,035	1880	3,515	1887	4,845	4,520
Petersburg.....	2	1886	4	1880	1	1885	2	3	64	1882	262	1884	7	1886	45	255
Norfolk and Portsmouth.....	369	1882	411	1884	331	1881	367	80	10,584	1880	12,878	1888	8,020	1882	10,571	4,258
Cherrystone.....	338	1882	360	1884	283	1881	338	77	3,347	1888	5,807	1884	4,573	1883	5,341	1,234
North Carolina:																
Albemarle.....	48	1889	58	1883	39	1882	47	19	744	1881	954	1886	578	1887	690	376
Pamlico.....	104	1883	111	1886	98	1888	105	13	2,109	1883	2,522	1887	1,916	1884	2,104	606
Beaufort.....	85	1889	121	1881	65	1886	85	56	1,443	1889	2,012	1881	1,059	1885	1,434	953
Wilmington.....	54	1881	75	1889	32	1885	59	48	8,040	1884	7,543	1889	2,569	1880	4,879	4,974
South Carolina:																
Georgetown.....	8	1885	11	1881	3	1886	8	8	1,161	1885	1,820	1881	375	1887	1,203	1,451
Charleston.....	145	1882	158	1886	134	1883	141	24	3,729	1887	4,448	1888	2,713	1886	3,603	1,735
Beaufort.....	17	1883	21	1887	10	1880	17	11	706	1883	1,540	1887	209	1889	728	1,331

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 35.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (SAILING VESSELS)—Continued.

CUSTOMS DISTRICTS.	Annual average number of vessels regis- tered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctu- ation.	Annual average regis- tered ton- nage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctu- ation.
		Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Georgia:																
Savannah	54	1881	61	1884	43	1880	54	15	3,861	1884	5,498	1887	2,119	1880	3,806	3,379
Brunswick	28	1884	38	1886	23	1880	28	15	5,869	1884	9,899	1888	4,022	1881	5,524	5,877
St. Mary	2	1880	4	1881	1	1882	2	3	456	1880	1,228	1881	7	1882	395	1,221
Florida:																
Fernandina	15	1880	17	1886	12	1884	15	5	3,512	1880	4,914	1883	2,845	1887	3,519	2,069
St. John	21	1889	27	1884	12	1883	20	15	2,090	1883	2,891	1884	522	1881	1,942	2,368
St. Augustine	6	1889	15	1880	1	1884	6	14	139	1884	301	1880	33	1887	133	268
Key West	148	1888	173	1881	134	1889	146	39	3,433	1888	3,886	1889	2,505	1881	3,388	1,381
St. Mark	33	1885	44	1881	13	1882	34	31	1,209	1883	2,976	1889	343	1881	1,186	2,633
Apalachicola	25	1886	28	1884	19	1880	25	9	1,182	1887	2,264	1881	255	1882	1,210	2,009
Pensacola	114	1885	128	1882	88	1886	114	40	10,925	1885	17,103	1882	6,844	1880	11,134	10,259
Tampa	25								236							
Alabama:																
Mobile	79	1883	99	1887	63	1881	80	36	6,013	1881	9,338	1887	3,136	1889	4,986	6,202
Mississippi:																
Pearl River	133	1889	158	1880	119	1881	130	39	5,526	1889	9,268	1880	2,970	1883	5,187	6,298
Louisiana:																
New Orleans	337	1882	387	1889	287	1884	341	100	17,092	1880	29,928	1889	9,169	1884	16,506	20,759
Teche	69	1887	75	1883	56	1885	68	19	1,564	1880	2,030	1889	1,196	1884	1,689	834
Texas:																
Galveston	151	1883	163	1889	138	1884	151	25	4,886	1881	7,865	1885	3,572	1883	4,876	4,293
Saluria	24	1880	37	1889	11	1886	23	26	483	1880	838	1889	183	1884	548	635
Corpus Christi	30	1882	42	1886	22	1885	29	20	865	1882	1,796	1886	382	1887	843	1,414
Brazos de Santiago	9	1884	12	1888	4	1883	9	8	224	1884	458	1888	108	1889	227	350

COMPARATIVE STATISTICS—Continued.

TABLE 36.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS 1880-1889 (UNRIGGED CRAFT)—AVERAGE ANNUAL NUMBER AND AVERAGE ANNUAL TONNAGE OF ALL UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, WITH THE YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Maine:																
Machias.....	1								122							
Bangor.....	1					1887	1		238					1887	238	
Waldoboro.....	1					1880	1		255					1880	255	
Bath.....	4	1888	12	1880	1	1886	4	11	2,928	1888	10,054	1880	151	1886	2,272	9,903
Massachusetts:																
Newburyport.....	2					1880	2		87					1880	87	
Cloucester.....	1					1888	1		122					1888	122	
Boston and Charlestown.....	13	1889	20	1887	4	1888	14	16	13,008	1889	19,610	1887	4,362	1888	15,053	15,248
Fall River.....	9	1883	10	1885	8	1880	9	2	3,571	1889	4,149	1885	2,884	1884	3,626	1,265
Rhode Island:																
Providence.....	3			1886	2	1887	3	1	957	1887	1,046	1886	689	1888	1,046	357
Connecticut:																
Stonington.....	1								482							
New London.....	14	1889	20	1880	3	1884	15	17	3,493	1889	5,571	1880	289	1885	3,839	5,282
Middletown.....	17	1886	21	1880	4	1882	19	17	3,348	1886	4,133	1880	641	1881	2,937	3,492
New Haven.....	113	1883	140	1881	63	1888	121	77	15,643	1883	19,680	1881	7,169	1888	16,828	12,500
Fairfield.....	2	1888	4	1881	1	1880	2	3	287	1888	570	1881	148	1887	297	422
Hartford.....	20	1889	22	1887	19	1888	20	3	4,136	1889	4,343	1887	3,880	1888	4,204	483
New York:																
New York.....	484	1889	631	1880	402	1886	476	229	96,727	1889	129,455	1880	79,196	1886	94,261	50,259
Sag Harbor.....	2	1880	3	1884	1	1883	2	2	1,433	1880	2,569	1884	781	1883	1,938	1,788
New Jersey:																
Perth Amboy.....	65	1882	90	1884	48	1888	63	51	16,703	1889	21,802	1880	10,661	1887	16,406	11,141
Burlington.....	6	1880	7	1889	1	1881	7	6	853	1880	1,029	1889	150	1881	1,029	879
Pennsylvania:																
Philadelphia.....	32	1889	46	1880	29	1885	32	17	6,785	1889	11,137	1880	4,822	1885	6,693	6,315
Delaware:																
Delaware.....	2					1880	2		257	1882	596	1880	117	1882	596	479
Maryland:																
Baltimore.....	8	1888	17	1881	3	1884	8	14	1,517	1888	3,241	1881	240	1889	1,391	2,992
Eastern.....	6								947							
District of Columbia:																
Georgetown.....	1	1887	2			1885	1	1	586	1887	742	1885	598	1886	598	234
Virginia:																
Yorktown.....	1					1880	1		429	1887	815	1880	43	1880	43	772
Richmond.....	2					1880	2		156					1880	156	
Tappahannock.....	1					1888	1		71					1888	71	
South Carolina:																
Beaufort.....	1								51							
Georgia:																
Savannah.....	2			1889	1	1888	2	1	593	1888	1,177	1889	9	1888	1,177	1,168
Florida:																
St. Mark.....	1								32							
Alabama:																
Mobile.....	8	1885	11	1880	4	1886	8	7	398	1887	538	1882	174	1889	413	364
Mississippi:																
Pearl River.....	10			1880	18	1881	19	1	1,235	1881	1,263	1880	1,180	1882	1,263	83
Louisiana:																
Teche.....	2								100							
Texas:																
Galveston.....	4	1887	6	1880	2	1882	4	4	718	1887	981	1885	367	1883	735	614
Corpus Christi.....	2					1884	2		223					1884	223	
Paso del Norte.....	1					1888	1		137			1889	136	1888	137	1

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT BUILT IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889.

SUMMARY.

YEARS AND CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	0,727	1,148,350	1,610	418,684	4,562	618,705	555	110,961
1880.....	588	92,870	141	32,974	397	52,671	50	7,034
1881.....	636	112,535	185	41,394	406	60,890	45	10,251
1882.....	875	170,641	210	58,343	553	93,585	112	20,613
1883.....	873	192,689	189	65,078	631	119,060	53	8,551
1884.....	869	166,890	197	49,036	634	108,200	38	9,654
1885.....	643	109,657	153	44,017	465	59,332	23	6,306
1886.....	491	57,674	100	19,096	355	33,116	36	5,462
1887.....	538	73,676	123	38,972	371	24,252	44	10,452
1888.....	602	82,951	161	30,466	333	30,318	108	22,167
1889.....	612	89,058	149	41,308	417	37,281	46	10,469

1880

Total.....	588	92,870	141	32,974	397	52,671	50	7,034
Maine.....	90	87,165	12	1,155	78	36,010		
Passamaquoddy.....	1	33	1	33				
Machias.....	3	642			3	642		
Frenchman Bay.....	3	312			3	312		
Castine.....	7	802			7	802		
Bangor.....	2	96			2	96		
Belfast.....	7	2,930			7	2,930		
Waldoboro.....	8	5,064	2	97	6	4,967		
Wiscasset.....	3	164	1	189	2	25		
Bath.....	36	19,762	1	15	35	19,747		
Portland and Falmouth.....	10	4,784	3	496	7	4,288		
Kennebunk.....	10	2,576	4	875	6	2,301		
Massachusetts.....	36	3,819	7	1,274	29	2,545		
Newburyport.....	4	332	1	36	3	296		
Gloucester.....	7	713			7	713		
Marblehead.....	1	7			1	7		
Boston and Charlestown.....	17	2,726	6	1,238	11	1,488		
Nantucket.....	7	41			7	41		
Rhode Island.....	14	310	4	206	10	104		
Providence.....	5	173	1	131	4	42		
Bristol and Warren.....	3	75	3	75				
Newport.....	6	62			6	62		
Connecticut.....	44	5,080	3	653	10	1,276	31	3,151
Stonington.....	3	533	2	527	1	6		
New London.....	2	133	1	126	1	7		
Middletown.....	2	150			2	150		
New Haven.....	35	4,230			4	1,079	31	3,151
Fairfield.....	2	34			2	34		
New York.....	109	8,032	41	3,842	59	3,106	9	1,084
New York.....	102	7,877	40	3,831	53	2,362	9	1,084
Sag Harbor.....	7	755	1	11	6	744		
New Jersey.....	43	4,458	5	707	32	1,825	3	1,926
Newark.....	1	64			1	64		
Perth Amboy.....	12	2,564	3	677	4	47	5	1,840
Little Egg Harbor.....	6	65			6	65		
Great Egg Harbor.....	9	190	1	17	8	173		
Bridgeton.....	10	1,442			10	1,442		
Burlington.....	5	133	1	13	3	34	1	86
Pennsylvania.....								
Philadelphia.....	43	21,295	28	16,958	15	4,337		
Delaware.....								
Delaware.....	22	8,473	12	7,116	10	1,357		
Maryland.....	56	888	7	222	48	616	1	50
Baltimore.....	23	445	7	222	15	173	1	50
Annapolis.....	1	9			1	9		
Eastern.....	32	434			32	434		
District of Columbia.....								
Georgetown.....	5	78	1	33	4	45		

ATLANTIC COAST AND GULF OF MEXICO.

91

COMPARATIVE STATISTICS—Continued.

TABLE 27.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1880—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Virginia.....	31	436	1	40	30	396		
Alexandria.....	3	56			3	56		
Tappahannock.....	4	96			4	96		
Yorktown.....	6	48			6	48		
Cherrystone.....	6	92			6	92		
Norfolk and Portsmouth.....	12	144	1	40	11	104		
North Carolina.....	15	434	10	312	5	122		
Albemarle.....	9	134	7	62	2	72		
Pamlico.....	5	217	2	167	3	50		
Wilmington.....	1	83	1	83				
South Carolina.....	13	212	3	94	10	118		
Georgetown.....	1	51	1	51				
Charleston.....	11	153	2	43	9	110		
Beaufort.....	1	8			1	8		
Georgia.....	7	115	2	45	5	70		
Savannah.....	5	68	1	27	4	41		
Brunswick.....	2	47	1	18	1	20		
Florida.....	17	362	2	112	15	250		
St. John.....	1	23			1	23		
St. Augustine.....	1	33			1	33		
Key West.....	6	96			6	96		
St. Mark.....	3	118	2	112	1	6		
Apalachicola.....	4	32			4	32		
Pensacola.....	2	60			2	60		
Alabama.....								
Mobile.....	5	141	2	113	3	28		
Mississippi.....								
Pearl River.....	9	358	1	92	6	82	2	184
Louisiana.....	19	278			18	239	1	39
New Orleans.....	16	202			16	202		
Teche.....	3	76			2	37	1	39
Texas.....	10	145			10	145		
Galveston.....	7	87			7	87		
Saluria.....	2	32			2	32		
Brazos de Santiago.....	1	26			1	26		

1881

Total.....	636	112,535	185	41,394	406	60,890	45	10,251
Maine.....	102	42,282	8	908	94	41,374		
Passamaquoddy.....	1	10			1	10		
Machias.....	7	867			7	867		
Frenchman Bay.....	1	12	1	12				
Castine.....	4	1,090			4	1,090		
Bangor.....	6	888	2	27	4	861		
Belfast.....	6	3,128			6	3,128		
Waldoboro.....	8	4,245			8	4,245		
Wiscasset.....	9	640	2	311	7	329		
Bath.....	48	25,977	3	558	45	25,419		
Portland and Falmouth.....	8	4,166			8	4,166		
Kennebunk.....	4	1,250			4	1,250		
Vermont.....								
Burlington.....	1	370	1	370				
Massachusetts.....	33	7,168	7	2,342	25	4,723	1	103
Newburyport.....	4	30	2	23	2	16		
Gloucester.....	11	612			11	612		
Salem and Beverly.....	1	25			1	25		
Boston and Charlestown.....	11	6,131	5	2,310	6	3,812		
Barnstable.....	2	223			2	223		
Nantucket.....	1	6			1	6		
New Bedford.....	1	8			1	8		
Fall River.....	2	124			1	21	1	103

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1881—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Rhode Island.....	16	149	5	67	11	82		
Providence.....	6	43			6	43		
Bristol and Warren.....	6	74	5	67	1	7		
Newport.....	4	32			4	32		
Connecticut.....	36	4,186	4	177	17	1,097	15	2,912
Stonington.....	2	12			2	12		
New London.....	7	252	2	102	5	150		
Middletown.....	7	1,401			3	36	4	1,365
New Haven.....	18	2,478	1	43	6	888	11	1,547
Fairfield.....	2	43	1	32	1	11		
New York.....	117	13,097	61	8,880	44	1,730	12	2,487
New York.....	113	13,020	61	8,880	40	1,662	12	2,487
Sag Harbor.....	4	68			4	68		
New Jersey.....	41	5,924	11	1,056	23	2,031	7	2,837
Newark.....	3	46	2	35	1	11		
Perth Amboy.....	22	3,882	8	982	7	63	7	2,837
Little Egg Harbor.....	1	22			1	22		
Great Egg Harbor.....	4	557			4	557		
Bridgeton.....	11	1,417	1	39	10	1,378		
Pennsylvania:								
Philadelphia.....	56	25,828	42	22,087	12	3,279	2	462
Delaware:								
Delaware.....	26	5,240	10	2,348	12	1,998	4	903
Maryland.....	54	1,953	4	488	50	1,465		
Baltimore.....	25	1,309	4	488	21	821		
Annapolis.....	2	57			2	57		
Eastern.....	27	587			27	587		
District of Columbia:								
Georgetown.....	1	10	1	10				
Virginia.....	38	1,463	3	119	33	996	2	348
Alexandria.....	2	685			2	685		
Tappahannock.....	5	32			5	32		
Richmond.....	1	13			1	13		
Yorktown.....	8	70			8	70		
Petersburg.....	1	43	1	43				
Cherrystone.....	9	95			9	95		
Norfolk and Portsmouth.....	12	525	2	76	8	101	2	248
North Carolina.....	17	632	6	122	9	311	2	190
Albemarle.....	5	49	5	49				
Pamlico.....	10	499	1	73	7	227	2	190
Wilmington.....	2	84			2	84		
South Carolina:								
Charleston.....	10	685	2	547	8	138		
Georgia.....	6	646	3	615	3	31		
Savannah.....	2	15			2	15		
Brunswick.....	4	631	3	615	1	16		
Florida.....	27	976	8	735	19	241		
St. John.....	6	268	3	212	3	56		
St. Augustine.....	1	13			1	13		
Key West.....	5	49			5	49		
St. Mark.....	2	92	2	92				
Apalachicola.....	5	371	2	342	3	29		
Pensacola.....	8	183	1	89	7	94		
Alabama:								
Mobile.....	7	431	4	342	3	89		
Mississippi:								
Pearl River.....	7	176			7	176		
Louisiana.....	31	573	3	142	28	431		
New Orleans.....	20	237			20	237		
Teche.....	11	336	3	142	8	194		

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1881—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Texas.....	10	737	2	39	8	698		
Galveston.....	6	633	2	39	4	594		
Saluria.....	3	87			2	87		
Corpus Christi.....	1	17			1	17		

1882

Total.....	875	170,541	210	56,343	553	93,585	112	20,613
Maine.....	134	63,205	14	1,909	120	61,296		
Passamaquoddy.....	5	200	2	168	3	32		
Machias.....	10	459	2	41	8	418		
Frenchman Bay.....	1	19	1	19				
Castine.....	5	638			5	638		
Bangor.....	6	991	3	177	3	814		
Belfast.....	12	5,382			12	5,382		
Waldoboro.....	20	10,035	1	307	19	9,728		
Wiscasset.....	6	1,376			6	1,376		
Bath.....	57	39,451	3	1,032	54	38,419		
Portland and Falmouth.....	7	2,421	2	165	5	2,256		
Kennebunk.....	5	2,233			5	2,233		
Massachusetts.....	60	13,773	10	2,791	50	10,982		
Newburyport.....	4	4,100			4	4,100		
Gloucester.....	22	1,681			22	1,681		
Salem and Beverly.....	1	10			1	10		
Marblehead.....	3	90			3	90		
Boston and Charlestown.....	25	7,608	10	2,791	15	4,817		
Barnstable.....	2	259			2	259		
Nantucket.....	2	14			2	14		
Fall River.....	1	11			1	11		
Rhode Island.....	12	352	5	295	7	57		
Providence.....	7	111	1	61	6	50		
Bristol and Warren.....	4	234	4	234				
Newport.....	1	7			1	7		
Connecticut.....	98	16,636	10	3,313	18	2,218	70	11,105
Stonington.....	6	3,071	2	2,931	4	140		
New London.....	4	473			4	473		
Middletown.....	4	778			1	28	3	750
New Haven.....	77	12,162	5	265	5	1,542	67	10,355
Fairfield.....	7	152	3	117	4	35		
New York.....	151	18,667	61	10,195	61	3,641	29	4,831
New York.....	143	17,064	57	9,518	57	3,015	29	4,831
Sag Harbor.....	8	703	4	677	4	26		
New Jersey.....	42	6,400	8	536	29	3,276	5	2,507
Newark.....	3	220	3	220				
Perth Amboy.....	13	2,865	2	159	6	109	5	2,507
Little Egg Harbor.....	1	23			1	23		
Great Egg Harbor.....	7	1,051			7	1,051		
Bridgeton.....	15	2,093			15	2,093		
Burlington.....	3	157	3	157				
Pennsylvania.....	55	28,991	38	24,470	14	4,088	3	433
Philadelphia.....								
Delaware.....	29	10,559	14	7,671	13	2,292	2	596
Delaware.....								
Maryland.....	105	6,089	12	2,661	90	2,377	3	1,051
Baltimore.....	53	3,614	11	2,379	42	1,235		
Eastern.....	52	2,475	1	282	48	1,142	3	1,051
District of Columbia:								
Georgetown.....	5	93	2	58	3	35		
Virginia.....	42	800	6	255	36	614		
Alexandria.....	3	131			3	131		
Tappahannock.....	5	57			5	57		
Richmond.....	1	13	1	13				
Yorktown.....	6	48			6	48		
Cherrystone.....	11	247	3	61	8	186		
Norfolk and Portsmouth.....	16	373	2	181	14	192		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1882—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
North Carolina.....	23	699	9	503	14	196		
Albemarle.....	0	107	3	34	3	73		
Pamlico.....	8	350	3	299	5	51		
Beaufort.....	6	72			6	72		
Wilmington.....	3	170	3	170				
South Carolina.....	11	1,157	3	1,024	8	133		
Georgetown.....	1	51	1	51				
Charleston.....	10	1,106	2	973	8	133		
Georgia.....	5	46	3	32	2	14		
Savannah.....	4	38	2	24	2	14		
Brunswick.....	1	8	1	8				
Florida.....	35	734	9	338	26	396		
Fernandina.....	2	75			2	75		
St. John.....	8	255	6	226	2	29		
Key West.....	12	127			12	127		
St. Mark.....	5	55			5	55		
Apalachicola.....	3	112	3	112				
Pensacola.....	5	110			5	110		
Alabama:								
Mobile.....	6	406			6	406		
Mississippi:								
Pearl River.....	21	510	1	27	20	483		
Louisiana.....	26	1,099	5	265	21	834		
New Orleans.....	17	228			17	228		
Teche.....	9	871	5	265	4	606		
Texas.....	15	247			15	247		
Galveston.....	10	147			10	147		
Saluria.....	2	27			2	27		
Corpus Christi.....	2	50			2	50		
Brazos de Santiago.....	1	23			1	23		

1883

Total.....	873	192,680	189	65,078	631	119,000	53	8,551
Maine.....	179	79,295	14	7,153	165	72,142		
Passamaquoddy.....	2	94			2	94		
Machias.....	12	2,678			12	2,678		
Frenchman Bay.....	3	266	1	20	2	246		
Castine.....	3	1,140			3	1,140		
Bangor.....	6	1,351	2	328	4	1,023		
Belfast.....	17	6,979	1	11	16	6,968		
Waldoboro.....	26	13,602			26	13,602		
Wiscasset.....	19	3,604	1	40	18	3,564		
Bath.....	73	43,519	9	6,754	64	36,765		
Portland and Falmouth.....	14	5,658			14	5,658		
Kennebunk.....	4	404			4	404		
New Hampshire:								
Portsmouth.....	1	561			1	561		
Massachusetts.....	95	20,257	12	4,351	83	15,906		
Newburyport.....	10	7,445			10	7,445		
Gloucester.....	48	4,362	2	185	46	4,177		
Salem and Beverly.....	3	160			3	160		
Boston and Charlestown.....	28	8,151	10	4,166	18	3,985		
Barnstable.....	4	125			4	125		
Nantucket.....	1	6			1	6		
New Bedford.....	1	8			1	8		
Rhode Island.....	4	170	4	170				
Providence.....	2	105	2	105				
Bristol and Warren.....	1	38	1	38				
Newport.....	1	27	1	27				

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1883—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Connecticut.....	63	9,942	12	2,224	23	3,150	28	4,568
Stonington.....	15	2,538	8	2,079	6	76	1	383
New London.....	5	1,258	1	18	2	785	2	455
Middletown.....	5	608			2	177	3	431
New Haven.....	20	5,149	2	109	5	1,741	22	3,290
Fairfield.....	9	389	1	18	8	371		
New York.....	110	11,411	47	6,337	55	3,375	8	1,690
New York.....	104	10,880	47	6,337	49	2,844	8	1,690
Sag Harbor.....	6	531			6	531		
New Jersey.....	40	3,960	6	221	32	2,790	2	949
Newark.....	1	30	1	30				
Perth Amboy.....	11	1,168	3	132	6	87	2	949
Little Egg Harbor.....	2	32			2	32		
Great Egg Harbor.....	6	1,099	1	11	5	1,088		
Bridgeport.....	19	1,583			19	1,583		
Burlington.....	1	48	1	48				
Pennsylvania: Philadelphia.....	65	44,511	41	34,264	23	9,805	1	442
Delaware: Delaware.....	35	10,653	12	5,933	21	4,122	2	598
Maryland.....	111	4,748	6	1,359	105	3,389		
Baltimore.....	52	3,465	6	1,359	46	2,106		
Annapolis.....	1	33			1	33		
Eastern.....	58	1,250			58	1,250		
Virginia.....	35	2,981	5	501	30	2,480		
Alexandria.....	2	1,506			2	1,506		
Tappahannock.....	2	184			2	184		
Petersburg.....	2	50	1	37	1	13		
Yorktown.....	7	394			7	394		
Norfolk and Portsmouth.....	17	715	4	464	13	251		
Cherrystone.....	5	72			5	72		
North Carolina.....	27	595	8	359	19	236		
Albemarle.....	5	35	3	19	2	16		
Pamlico.....	9	359	4	317	5	42		
Beaufort.....	12	182	1	23	11	139		
Wilmington.....	1	39			1	39		
South Carolina.....	13	1,049	6	980	7	69		
Georgetown.....	2	316	2	316				
Charleston.....	10	725	4	664	6	61		
Beaufort.....	1	8			1	8		
Georgia: Savannah.....	3	48			3	48		
Florida.....	32	1,332	11	1,012	21	320		
St. John.....	8	392	7	370	1	22		
Key West.....	7	69			7	69		
St. Mark.....	5	143	1	105	4	38		
Apalachicola.....	2	523	2	523				
Pensacola.....	10	205	1	14	9	191		
Alabama: Mobile.....	18	428	1	76	5	57	12	295
Mississippi: Pearl River.....	10	174			10	174		
Louisiana.....	21	414	2	73	19	341		
New Orleans.....	13	233			13	233		
Teche.....	8	181	2	73	6	108		
Texas.....	11	160	2	65	9	95		
Galveston.....	8	132	2	65	6	67		
Saluria.....	2	16			2	16		
Corpus Christi.....	1	12			1	12		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

188-1

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	860	166,890	197	49,036	634	108,200	38	9,654
Maine.....	140	65,691	11	2,702	129	62,989		
Passamaquoddy.....	1	486			1	486		
Machias.....	16	4,851			16	4,851		
Frenchman Bay.....	5	675			5	675		
Castine.....	4	61			4	61		
Bangor.....	6	1,433	1	45	5	1,388		
Belfast.....	12	7,326			12	7,326		
Waldoboro.....	25	11,491			25	11,491		
Wiscasset.....	7	1,107			7	1,107		
Bath.....	48	31,869	7	2,500	41	29,270		
Portland and Falmouth.....	11	4,348	3	58	8	4,290		
Kennebunk.....	5	2,044			5	2,044		
New Hampshire:								
Portsmouth.....	2	1,027			2	1,027		
Massachusetts.....	72	9,276	9	921	63	8,355		
Newburyport.....	3	1,743			3	1,743		
Gloucester.....	38	3,524			38	3,524		
Salem and Beverly.....	5	92			5	92		
Boston and Charlestown.....	15	3,186	8	894	7	2,292		
Plymouth.....	1	8			1	8		
Barnstable.....	1	290			1	290		
Nantucket.....	2	13			2	13		
Edgartown.....	2	34			2	34		
New Bedford.....	4	363	1	27	3	336		
Fall River.....	1	23			1	23		
Rhode Island.....	17	427	16	407	1	20		
Providence.....	5	142	5	142				
Bristol and Warren.....	6	231	6	231				
Newport.....	6	54	5	34	1	20		
Connecticut.....	29	7,627	9	450	14	4,567	6	2,630
Stonington.....	8	2,598	1	115	2	66	5	2,417
New London.....	3	577			3	577		
Middletown.....	5	608	2	55	2	400		
New Haven.....	11	3,663	4	139	7	3,524	1	213
Fairfield.....	2	121	2	121				
New York.....	129	15,637	50	8,564	64	3,852	15	3,221
New York.....	123	14,049	48	7,070	60	3,758	15	3,221
Sag Harbor.....	6	1,588	2	1,494	4	94		
New Jersey.....	61	9,061	2	155	51	7,007	8	1,919
Newark.....	2	130	1	59	1	71		
Perth Amboy.....	20	2,111	1	76	11	116	8	1,919
Little Egg Harbor.....	2	18			2	18		
Great Egg Harbor.....	13	3,600			13	3,600		
Bridgeton.....	23	3,180			23	3,180		
Burlington.....	1	22			1	22		
Pennsylvania:								
Philadelphia.....	50	30,336	35	23,046	11	6,074	4	1,216
Delaware:								
Delaware.....	35	12,557	12	7,669	23	4,888		
Maryland.....	147	6,752	11	1,536	132	4,582	4	634
Baltimore.....	60	5,106	10	1,454	55	3,018	4	634
Eastern.....	78	1,646	1	82	77	1,564		
District of Columbia:								
Georgetown.....	5	70	1	38	4	32		
Virginia.....	57	3,982	8	746	49	3,236		
Alexandria.....	10	2,383	3	173	7	2,210		
Tappahannock.....	3	81			3	81		
Richmond.....	2	150	1	72	1	78		
Petersburg.....	1	7			1	7		
Yorktown.....	14	557	1	17	13	540		
Norfolk and Portsmouth.....	15	615	3	484	12	131		
Cherrystone.....	12	180			12	180		

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1884—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
North Carolina.....	26	734	9	560	17	174		
Albemarle.....	8	250	4	218	4	32		
Pamlico.....	6	162	2	123	4	39		
Beaufort.....	10	169	1	66	9	103		
Wilmington.....	2	153	2	153				
South Carolina.....	8	438	4	348	4	90		
Georgetown.....	3	226	2	208	1	18		
Charleston.....	5	212	2	140	3	72		
Georgia.....	8	1,145	6	1,119	2	26		
Savannah.....	7	1,127	5	1,101	2	26		
Brunswick.....	1	18	1	18				
Florida.....	20	545	6	272	14	273		
Fernandina.....	1	8			1	8		
St. John.....	4	209	4	209				
St. Augustine.....	1	41	1	41				
Key West.....	6	76			6	76		
St. Mark.....	3	33			3	33		
Pensacola.....	5	178	1	22	4	156		
Alabama.....								
Mobile.....	5	366	3	335	2	31		
Mississippi.....								
Pearl River.....	16	600	3	177	13	423		
Louisiana.....	34	452	1	20	33	432		
New Orleans.....	25	341			25	341		
Teche.....	9	111	1	20	8	91		
Texas.....	8	167	1	11	6	122	1	34
Galveston.....	6	127	1	11	5	116		
Saluria.....	1	6			1	6		
Brazos de Santiago.....	1	34					1	34

1885

Total.....	643	109,657	155	44,017	465	59,332	23	6,306
Maine.....	87	37,533	6	3,417	81	34,116		
Passamaquoddy.....	6	992	1	17	5	975		
Machias.....	12	2,309			12	2,309		
Frenchman Bay.....	1	53			1	53		
Castine.....	2	949			2	949		
Bangor.....	1	412			1	412		
Belfast.....	5	4,221			5	4,221		
Waldoboro.....	7	5,189			7	5,189		
Wiscasset.....	10	1,375			10	1,375		
Bath.....	31	20,345	5	3,400	26	16,945		
Portland and Falmouth.....	6	1,174			6	1,174		
Saco.....	1	9			1	9		
Kennebunk.....	5	505			5	505		
Massachusetts.....	45	6,760	2	21	43	6,748		
Newburyport.....	2	1,659			2	1,659		
Gloucester.....	28	2,462			28	2,462		
Salem and Beverly.....	4	39	2	21	2	18		
Boston and Charlestown.....	9	2,589			9	2,589		
New Bedford.....	2	20			2	20		
Rhode Island.....	10	204	6	156	4	48		
Providence.....	2	13	2	13				
Bristol and Warren.....	5	127	3	107	2	20		
Newport.....	3	64	1	36	2	28		
Connecticut.....	31	3,621	12	529	16	2,542	3	550
Stonington.....	10	460	3	129	7	331		
New London.....	2	259			1	20	1	239
Middletown.....	5	563	2	33	1	219	2	311
New Haven.....	9	2,150	4	197	5	1,953		
Fairfield.....	5	189	3	170	2	19		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1885—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
New York.....	104	11,736	46	6,452	44	942	14	4,342
New York.....	98	11,584	43	6,408	41	834	14	4,342
Sag Harbor.....	6	152	3	44	3	108		
New Jersey.....	33	3,377	5	155	28	3,222		
Newark.....	3	60	2	37	1	23		
Perth Amboy.....	3	64			3	64		
Little Egg Harbor.....	3	86			3	86		
Great Egg Harbor.....	3	217			3	217		
Bridgeton.....	16	2,757			16	2,757		
Burlington.....	5	193	3	118	2	75		
Pennsylvania:								
Philadelphia.....	37	26,049	24	22,172	13	3,877		
Delaware:								
Delaware.....	28	10,620	15	6,956	11	2,889	2	775
Maryland.....	117	4,949	5	1,074	109	3,280	3	595
Baltimore.....	56	4,060	5	1,074	48	2,391	3	595
Eastern.....	61	889			61	889		
District of Columbia:								
Georgetown.....	3	20	2	18	1	8		
Virginia.....	26	324	1	18	25	306		
Alexandria.....	3	74			3	74		
Tappahannock.....	2	23			2	23		
Richmond.....	1	18	1	18				
Yorktown.....	3	23			3	23		
Norfolk and Portsmouth.....	13	132			13	132		
Cherrystone.....	4	54			4	54		
North Carolina.....	13	219	2	49	11	170		
Albemarle.....	2	15			2	15		
Pamlico.....	5	95	1	39	4	56		
Beaufort.....	3	37			3	37		
Wilmington.....	3	72	1	10	2	62		
South Carolina.....	13	675	3	456	10	219		
Georgetown.....	1	16			1	16		
Charleston.....	11	643	3	456	8	187		
Beaufort.....	1	16			1	16		
Georgia.....	10	694	3	606	7	88		
Savannah.....	9	651	2	563	7	88		
Brunswick.....	1	43	1	43				
Florida.....	42	1,692	15	1,250	27	442		
St. John.....	14	1,028	9	956	5	72		
Key West.....	10	215	3	118	7	97		
St. Mark.....	7	77			7	77		
Apalachicola.....	4	161	2	137	2	24		
Pensacola.....	7	211	1	39	6	172		
Alabama:								
Mobile.....	8	236	3	135	4	55	1	46
Mississippi:								
Pearl River.....	8	195	1	75	7	120		
Louisiana.....	19	304	2	122	17	182		
New Orleans.....	15	261	1	114	14	147		
Teche.....	4	43	1	8	3	35		
Texas:								
Galveston.....	9	434	2	356	7	78		

ATLANTIC COAST AND GULF OF MEXICO.

99

COMPARATIVE STATISTICS—Continued.

TABLE 27.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1886

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	491	57,674	100	19,096	365	33,116	36	5,462
Maine	55	23,408	7	942	47	22,251	1	215
Passamaquoddy	5	50			5	50		
Machias	2	956			2	956		
Frenchman Bay	2	103			2	103		
Castine	2	77			2	77		
Bangor	5	437	2	110	3	327		
Belfast	3	2,817			3	2,817		
Waldoboro	7	3,608			7	3,608		
Wiscasset	5	488	2	225	3	263		
Bath	23	14,600	2	315	20	14,070	1	215
Kennebunk	1	292	1	292				
Massachusetts	30	1,743	6	246	24	1,497		
Newburyport	1	13			1	13		
Gloucester	18	1,388	1	22	17	1,366		
Marblehead	2	13			2	13		
Boston and Charlestown	5	294	4	208	1	86		
Barnstable	2	13			2	13		
New Bedford	1	6			1	6		
Fall River	1	16	1	16				
Rhode Island	4	77	1	52	3	25		
Providence	2	12			2	12		
Bristol and Warren	1	52	1	52				
Newport	1	13			1	13		
Connecticut	22	5,396	9	3,093	12	2,155	1	148
Stonington	5	2,624	1	2,555	4	69		
New London	2	242			2	242		
Middletown	1	148					1	148
New Haven	7	2,036	3	208	4	1,828		
Fairfield	7	346	5	330	2	16		
New York	71	6,357	29	3,176	28	741	14	2,440
New York	70	6,334	29	3,176	27	718	14	2,440
Sag Harbor	1	23			1	23		
New Jersey	43	2,865	2	265	26	839	15	1,761
Newark	1	176	1	176				
Perth Amboy	18	1,789			3	28	15	1,761
Great Egg Harbor	2	451			2	451		
Bridgeton	20	350			20	350		
Burlington	2	99	1	89	1	10		
Pennsylvania:								
Philadelphia	27	8,434	19	6,118	6	1,861	2	455
Delaware:								
Delaware	7	2,232	5	2,150	2	82		
Maryland	108	3,752	4	2,065	104	1,687		
Baltimore	59	3,170	4	2,065	55	1,105		
Annapolis	2	22			2	22		
Eastern	47	560			47	560		
District of Columbia:								
Georgetown	1	59			1	59		
Virginia	26	836	2	40	24	796		
Alexandria	4	616			4	616		
Tappahannock	2	25			2	25		
Petersburg	1	13			1	13		
Yorktown	3	23			3	23		
Norfolk and Portsmouth	12	134	2	40	10	94		
Cherrystone	4	25			4	25		
North Carolina	11	411	4	334	7	77		
Albemarle	4	45	1	17	3	28		
Pamlico	3	144	1	128	2	16		
Beaufort	2	33			2	33		
Wilmington	2	189	2	189				
South Carolina:								
Charleston	6	91			6	91		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1880—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Georgia:								
Savannah.....	4	52			4	52		
Florida.....	20	582	8	304	21	278		
St. John.....	6	176	4	126	2	50		
Key West.....	8	161	1	33	7	128		
St. Mark.....	9	100	2	35	7	65		
Apalachicola.....	3	122	1	110	2	12		
Pensacola.....	3	23			3	23		
Alabama:								
Mobile.....	8	376	3	276	5	100		
Mississippi:								
Pearl River.....	13	243			13	243		
Louisiana.....	17	618	1	35	13	140	3	443
New Orleans.....	8	94			8	94		
Teche.....	9	524	1	35	5	46	3	443
Texas.....	9	142			9	142		
Galveston.....	8	136			8	136		
Saluria.....	1	6			1	6		

1887

Total.....	538	73,676	123	38,972	371	24,252	44	10,452
Maine.....	48	16,570	5	728	42	15,720	1	122
Pasamaquoddy.....	1	12			1	12		
Machias.....	7	190			6	968	1	122
Frenchman Bay.....	2	24			2	24		
Castine.....	2	22			2	22		
Belfast.....	2	1,869			2	1,869		
Waldoboro.....	6	1,740	1	35	5	1,705		
Wiscasset.....	7	999			7	999		
Bath.....	17	10,152	3	664	14	9,488		
Portland and Falmouth.....	3	652	1	29	2	623		
Kennebunk.....	1	10			1	10		
Massachusetts.....	25	4,983	3	2,827	22	2,156		
Newburyport.....	1	90			1	90		
Gloucester.....	17	1,484			17	1,484		
Salem and Beverly.....	1	39	1	39				
Boston and Charlestown.....	5	3,362	2	2,788	3	574		
Barnstable.....	1	8			1	8		
Rhode Island.....	7	109	2	52	5	57		
Providence.....	3	41			3	41		
Bristol and Warren.....	4	68	2	52	2	16		
Connecticut.....	21	2,373	4	138	15	1,335	2	900
Stonington.....	6	187			6	187		
New London.....	5	1,290	1	32	2	358	2	900
Hartford.....	2	29	2	29				
New Haven.....	3	761			3	761		
Fairfield.....	5	106	1	77	4	29		
New York:								
New York.....	147	14,590	44	6,172	69	1,253	34	7,165
New Jersey.....	42	2,532	5	240	32	537	5	1,755
Newark.....	3	31	1	9	2	22		
Perth Amboy.....	15	2,147	4	231	6	161	5	1,755
Little Egg Harbor.....	2	29			2	29		
Great Egg Harbor.....	8	87			8	87		
Bridgeton.....	13	230			13	230		
Burlington.....	1	8			1	8		
Pennsylvania:								
Philadelphia.....	31	23,189	20	22,155	9	524	2	510
Delaware:								
Delaware.....	20	4,638	10	4,101	10	537		

ATLANTIC COAST AND GULF OF MEXICO.

101

COMPARATIVE STATISTICS—Continued.

TABLE 27.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1887—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Maryland	65	1,504	4	637	61	867		
Baltimore	25	1,068	4	637	21	431		
Annapolis	7	63			7	63		
Eastern	33	373			33	373		
District of Columbia:								
Georgetown	2	42			2	42		
Virginia	27	542	2	276	25	266		
Alexandria	1	18	1	18				
Tappahannock	1	8			1	8		
Richmond	1	7			1	7		
Yorktown	5	44			5	44		
Norfolk and Portsmouth	11	380	1	258	10	132		
Cherrystone	8	75			8	75		
North Carolina	21	695	7	570	14	116		
Albemarle	2	18	1	9	1	9		
Pamlico	4	261	2	244	2	17		
Beaufort	11	90			11	90		
Wilmington	4	326	4	326				
South Carolina:								
Charleston	9	460	4	420	5	40		
Georgia	3	298	1	283	2	15		
Savannah	2	15			2	15		
Brunswick	1	283	1	283				
Florida	23	433	6	197	17	236		
St. John	3	75	2	63	1	12		
Key West	5	66			5	66		
St. Mark	4	51			4	51		
Apalachicola	3	45	1	32	2	13		
Pensacola	8	196	3	102	5	94		
Alabama:								
Mobile	5	95	3	80	2	15		
Mississippi:								
Pearl River	11	173			11	173		
Louisiana	26	365	2	65	24	300		
New Orleans	12	188			12	188		
Teche	14	177	2	65	12	112		
Texas:								
Galveston	5	85	1	22	4	63		

1888

Total	602	82,951	161	30,466	333	30,318	108	22,167
Maine	52	20,724	9	2,555	43	18,169		
Machias	3	88			3	88		
Frenchman Bay	1	8			1	8		
Castine	3	25			3	25		
Belfast	3	3,166			3	3,166		
Waldoboro	7	2,455			7	2,455		
Wiscasset	2	177			2	177		
Bath	27	14,511	5	2,284	22	12,227		
Portland and Falmouth	3	219	2	204	1	15		
Kennebunk	3	75	2	67	1	8		
Massachusetts	55	4,174	10	1,430	45	2,744		
Newburyport	4	92	3	81	1	11		
Gloucester	18	1,560	1	65	17	1,495		
Salem and Beverly	1	9			1	9		
Boston and Charlestown	12	2,358	5	1,261	7	1,097		
Plymouth	1	6			1	6		
Barnstable	6	43			6	43		
Nantucket	2	16			2	16		
Edgartown	8	54			8	54		
New Bedford	1	5			1	5		
Fall River	2	31	1	22	1	8		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued

1888—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Rhode Island	7	199	6	193	1	6		
Providence	5	135	4	129	1	6		
Bristol and Warren	2	64	2	64				
Connecticut	36	8,716	9	795	15	4,575	12	3,246
Stonington	16	2,924	2	366	5	35	9	2,522
New London	6	2,561	1	34	4	2,222	1	305
Hartford	6	565	2	34	2	13	2	518
New Haven	4	2,447	1	148	3	2,299		
Fairfield	4	219	3	213	1	6		
New York	125	12,920	39	3,598	36	473	50	8,849
New York	120	12,778	39	3,598	31	331	50	8,849
Sag Harbor	5	142			5	142		
New Jersey	74	9,285	9	570	32	394	33	8,321
Newark	24	4,211	2	109	2	26	20	4,076
Perth Amboy	15	4,374	2	129			13	4,245
Little Egg Harbor	3	184	2	177	1	7		
Great Egg Harbor	14	124			14	124		
Bridgeton	16	296	1	59	15	237		
Burlington	2	96	2	96				
Pennsylvania:								
Philadelphia	24	3,355	17	2,705	5	324	2	326
Delaware:								
Delaware	26	12,062	17	11,006	8	823	1	233
Maryland	58	5,303	7	2,961	42	1,259	9	1,083
Baltimore	23	4,777	6	2,866	8	828	9	1,083
Annapolis	2	37			2	37		
Eastern	33	489	1	95	32	394		
District of Columbia:								
Georgetown	2	65	1	24	1	41		
Virginia	23	427	3	224	20	203		
Tappahannock	3	25			3	25		
Yorktown	4	43			4	43		
Norfolk and Portsmouth	11	313	3	224	8	89		
Cherrystone	5	46			5	46		
North Carolina	31	761	10	507	21	257		
Albemarle	6	96	4	80	2	16		
Pamlico	10	354	4	290	6	64		
Beaufort	11	139	1	55	10	84		
Wilmington	4	175	1	82	3	98		
South Carolina	10	106	3	43	7	63		
Georgetown	1	8			1	8		
Charleston	7	76	3	43	4	33		
Beaufort	2	22			2	22		
Georgia	9	3,181	7	3,157	1	15	1	9
Savannah	7	2,482	5	2,458	1	15	1	9
Brunswick	2	699	2	699				
Florida	31	848	10	475	21	373		
St. John	8	330	3	238	5	92		
St. Augustine	5	95	3	76	2	19		
Key West	4	131	1	90	3	41		
St. Mark	1	6			1	6		
Apalachicola	3	66	2	57	1	9		
Pensacola	10	220	1	14	9	206		
Alabama:								
Mobile	7	148	2	91	5	57		
Mississippi:								
Pearl River	14	190			14	190		
Louisiana	13	359	2	132	11	227		
New Orleans	8	167			8	167		
Touche	5	192	2	132	3	60		
Texas:								
Galveston	5	125			5	125		

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1889

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	612	89,068	149	41,308	417	37,281	46	10,460
Maine.....	65	21,765	9	3,193	56	18,572		
Passamaquoddy.....	2	20			2	20		
Machias.....	8	1,077			8	1,077		
Frenchman Bay.....	1	21			1	21		
Castine.....	9	85			9	85		
Bangor.....	3	365	3	365				
Belfast.....	1	497			1	497		
Waldoboro.....	7	3,635			7	3,635		
Wiscasset.....	4	555			4	555		
Bath.....	28	15,488	5	2,815	23	12,673		
Portland and Falmouth.....	2	22	1	13	1	9		
Massachusetts.....	56	4,692	11	938	45	3,754		
Newburyport.....	2	84	1	71	1	13		
Gloucester.....	29	2,574			29	2,574		
Marblehead.....	1	48			1	48		
Boston and Charlestown.....	13	1,827	7	760	6	1,067		
Plymouth.....	1	6			1	6		
Barnstable.....	6	39			6	39		
Edgartown.....	2	23	1	16	1	7		
Fall River.....	2	91	2	91				
Rhode Island.....	11	492	5	393	6	99		
Providence.....	5	152	2	115	3	37		
Bristol and Warren.....	3	239	2	232	1	7		
Newport.....	3	101	1	46	2	55		
Connecticut.....	42	13,034	8	3,850	17	4,607	17	4,577
Stonington.....	19	6,133	4	3,495	9	163	6	2,475
New London.....	4	1,401	1	186	3	1,215		
Hartford.....	8	855	1	19			7	836
New Haven.....	10	4,639	2	150	4	3,223	4	1,266
Fairfield.....	1	6			1	6		
New York.....	112	9,658	39	4,166	52	1,407	21	4,085
New York.....	109	9,615	39	4,166	49	1,384	21	4,085
Sag Harbor.....	3	23			3	23		
New Jersey.....	38	2,580	11	860	24	865	3	855
Newark.....	1	317					1	317
Perth Amboy.....	15	1,365	8	777	5	50	2	538
Little Egg Harbor.....	2	64	1	52	1	12		
Great Egg Harbor.....	12	83			12	83		
Bridgeton.....	6	720			6	720		
Burlington.....	2	31	2	31				
Pennsylvania.....								
Philadelphia.....	30	18,328	19	16,458	7	1,264	4	666
Delaware.....								
Delaware.....	16	9,527	8	6,237	7	2,044	1	346
Maryland.....	71	4,231	6	2,188	65	2,043		
Baltimore.....	22	3,461	6	2,188	16	1,273		
Annapolis.....	5	77			5	77		
Eastern.....	44	693			44	693		
District of Columbia.....								
Georgetown.....	25	372	2	88	23	284		
Virginia.....	30	493	2	174	28	319		
Alexandria.....	1	8			1	8		
Tappahannock.....	3	39			3	39		
Richmond.....	4	141	1	72	3	69		
Yorktown.....	5	48			5	48		
Norfolk and Portsmouth.....	8	170	1	102	7	66		
Cherrystone.....	9	87			9	87		
North Carolina.....	35	635	9	359	26	276		
Albemarle.....	6	191	3	162	3	29		
Pamlico.....	8	202	3	146	5	56		
Beaufort.....	16	166			16	166		
Wilmington.....	5	76	3	51	2	25		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (ALL VESSELS)—Continued.

1880—Continued.

CUSTOMS DISTRICTS.	Total.		Steamers.		Sailing vessels.		Unrigged craft.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
South Carolina.....	8	189	2	117	6	72		
Georgetown.....	1	90	1	90				
Charleston.....	7	99	1	27	6	72		
Georgia.....	8	1,630	4	1,588	4	42		
Savannah.....	5	789	1	747	4	42		
Brunswick.....	3	841	3	841				
Florida.....	29	624	5	200	24	424		
St. John.....	1	63			1	63		
St. Augustine.....	3	53			3	53		
Key West.....	14	219			14	219		
Tampa.....	1	9	1	9				
St. Mark.....	3	28	2	22	1	6		
Pensacola.....	7	252	2	169	5	83		
Alabama:								
Mobile.....	4	162	1	116	3	46		
Mississippi:								
Pearl River.....	10	205	2	139	8	66		
Louisiana.....	12	280	3	144	9	136		
New Orleans.....	6	89			6	89		
Teche.....	6	191	3	144	3	47		
Texas.....	10	161	3	100	7	61		
Galveston.....	8	148	3	100	5	48		
Corpus Christi.....	2	13			2	13		

ATLANTIC COAST AND GULF OF MEXICO.

105

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN THE CUSTOMS DISTRICTS OF THE ATLANTIC COAST AND GULF OF MEXICO DURING THE 10 YEARS 1880-1889, CLASSIFIED AS PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS.

SUMMARY.

YEARS AND CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,610	418,684	1,291	308,338	197	98,364	122	11,982
1880	141	32,974	103	23,964	29	8,076	9	934
1881	185	41,394	145	31,061	25	9,017	15	1,316
1882	210	56,843	169	38,601	27	16,622	14	1,120
1883	189	65,078	155	55,343	24	8,532	10	1,203
1884	197	49,036	169	42,479	11	4,328	17	2,229
1885	155	44,017	121	30,655	24	12,529	10	833
1886	100	19,096	85	12,809	8	5,929	7	358
1887	123	38,972	99	29,636	14	8,420	10	716
1888	161	30,466	128	17,601	18	11,231	15	1,634
1889	149	41,308	117	25,989	17	13,680	15	1,679

1880

Total	141	32,974	103	23,964	29	8,076	9	934
Maine	12	1,155	9	575	1	139	2	441
Passamaquoddy	1	33	1	33				
Waldoboro	2	97	2	97				
Wiscasset	1	130			1	139		
Bath	1	15	1	15				
Portland and Falmouth	3	496	1	55			2	441
Kennebunk	4	375	4	375				
Massachusetts	7	1,274	4	199	2	1,039	1	36
Newburyport	1	36					1	36
Boston and Charlestown	6	1,238	4	199	2	1,039		
Rhode Island	4	206	4	206				
Providence	1	131	1	131				
Bristol and Warren	3	75	3	75				
Connecticut	3	653	2	246	1	407		
Stonington	2	527	1	120	1	407		
New London	1	126	1	126				
New York	41	3,842	35	1,873	6	1,969		
New York	40	3,831	35	1,873	5	1,958		
Sag Harbor	1	11			1	11		
New Jersey	5	707	4	86	1	621		
Perth Amboy	3	677	2	56	1	621		
Great Egg Harbor	1	17	1	17				
Burlington	1	13	1	13				
Pennsylvania:								
Philadelphia	28	16,958	27	16,506	1	452		
Delaware:								
Delaware	12	7,116	5	3,864	7	3,252		
Maryland:								
Baltimore	7	222	7	222				
District of Columbia:								
Georgetown	1	33	1	33				
Virginia:								
Norfolk and Portsmouth	1	40	1	40				
North Carolina	10	312			7	62	3	250
Albemarle	7	62			7	62		
Pamlico	2	167					2	167
Wilmington	1	83					1	83
South Carolina	3	94	1	51	2	43		
Georgetown	1	51	1	51				
Charleston	2	43			2	43		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1880—Continued.

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Georgia.....	2	45	2	45				
Savannah.....	1	27	1	27				
Brunswick.....	1	18	1	18				
Florida:								
St. Mark.....	2	112	1	18			1	94
Alabama:								
Mobile.....	2	113					2	113
Mississippi:								
Pearl River.....	1	92			1	92		

1881

Total.....	185	41,394	145	31,061	25	9,017	15	1,316
Maine.....	8	908	6	597	2	311		
Frenchman Bay.....	1	12	1	12				
Bangor.....	2	27	2	27				
Wiscasset.....	2	311			2	311		
Bath.....	3	558	3	558				
Vermont:								
Burlington.....	1	370			1	370		
Massachusetts.....	7	2,342	7	2,342				
Newburyport.....	2	23	2	23				
Boston and Charlestown.....	5	2,319	5	2,319				
Rhode Island:								
Bristol and Warren.....	5	67	5	67				
Connecticut.....	4	177	3	82	1	95		
New London.....	2	102	1	7	1	95		
New Haven.....	1	43	1	43				
Fairfield.....	1	32	1	32				
New York:								
New York.....	61	8,880	58	6,360	3	2,520		
New Jersey.....	11	1,056	11	1,056				
Newark.....	2	35	2	35				
Perth Amboy.....	8	982	8	982				
Bridgeton.....	1	39	1	39				
Pennsylvania:								
Philadelphia.....	42	22,087	39	19,390	3	2,697		
Delaware:								
Delaware.....	10	2,348	6	458	3	1,700	1	190
Maryland:								
Baltimore.....	4	488	4	488				
District of Columbia:								
Georgetown.....	1	10	1	10				
Virginia.....	3	119	2	107			1	12
Petersburg.....	1	43	1	43				
Norfolk and Portsmouth.....	2	76	1	64			1	12
North Carolina.....	6	122			6	122		
Albemarle.....	5	49			5	49		
Pamlico.....	1	73			1	73		
South Carolina:								
Charleston.....	2	547	1	77	1	470		
Georgia:								
Brunswick.....	3	615			3	615		
Florida.....	8	785	1	11	1	56	6	668
St. John.....	3	212	1	11	1	56	1	145
St. Mark.....	2	92					2	92
Apalachicola.....	2	342					2	342
Pensacola.....	1	89					1	89

COMPARATIVE STATISTICS—Continued.

TABLE 28.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1881—Continued.

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Alabama:								
Mobile.....	4	342	1	16			3	326
Louisiana:								
Teche.....	3	142			1	61	2	81
Texas:								
Galveston.....	2	39					2	39

1882

Total.....	210	56,343	169	38,601	27	16,622	14	1,120
Maine.....	14	1,909	9	1,258	2	174	3	477
Pasamaquoddy.....	2	168	1	26			1	143
Machias.....	2	41	1	13			1	28
Frenchman Bay.....	1	19			1	19		
Bangor.....	3	177	3	177				
Waldoboro.....	1	307					1	307
Bath.....	3	1,032	3	1,032				
Portland and Falmouth.....	2	165	1	10	1	155		
Massachusetts:								
Boston and Charlestown.....	10	2,791	7	756	3	2,035		
Rhode Island.....	5	295	5	295				
Providence.....	1	61	1	61				
Bristol and Warren.....	4	234	4	234				
Connecticut.....	10	3,313	8	403	2	2,910		
Stonington.....	2	2,931	1	43	1	2,888		
New Haven.....	5	265	4	243	1	22		
Fairfield.....	3	117	3	117				
New York.....	61	10,195	57	7,563	4	2,632		
New York.....	57	9,518	54	7,488	3	2,030		
Sag Harbor.....	4	677	3	75	1	602		
New Jersey.....	8	536	8	536				
Newark.....	3	220	3	220				
Perth Amboy.....	2	159	2	159				
Burlington.....	3	157	3	157				
Pennsylvania:								
Philadelphia.....	38	24,470	37	23,553	1	917		
Delaware:								
Delaware.....	14	7,671	7	2,033	7	5,638		
Maryland.....	12	2,661	11	1,452	1	1,209		
Baltimore.....	11	2,379	10	1,170	1	1,209		
Eastern.....	1	282	1	282				
District of Columbia:								
Georgetown.....	2	58	2	58				
Virginia.....	6	255	6	255				
Richmond.....	1	13	1	13				
Norfolk and Portsmouth.....	2	181	2	181				
Cherrystone.....	3	61	3	61				
North Carolina.....	9	503	2	205	3	34	4	264
Albemarle.....	3	34			3	34		
Pamlico.....	3	299	2	205			1	94
Wilmington.....	3	170					3	170
South Carolina.....	3	1,024			2	973	1	51
Georgetown.....	1	51					1	51
Charleston.....	2	973			2	973		
Georgia.....	3	32	3	32				
Savannah.....	2	24	2	24				
Brunswick.....	1	8	1	8				

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1882—Continued.

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Florida	9	338	6	175	2	100	1	63
St. John	6	226	3	63	2	100	1	63
Apalachicola	3	112	3	112				
Mississippi:								
Pearl River	1	27	1	27				
Louisiana:								
Teche	5	265					5	265

1883

Total	189	65,078	155	55,343	24	8,532	10	1,203
Maine	14	7,153	14	7,153				
Frenchman Bay	1	20	1	20				
Bangor	2	328	2	328				
Belfast	1	11	1	11				
Wiscasset	1	40	1	40				
Bath	9	6,754	9	6,754				
Massachusetts	12	4,351	8	3,513	3	668	1	170
Gloucester	2	185	1	15			1	170
Boston and Charlestown	10	4,166	7	3,498	3	668		
Rhode Island	4	170	4	170				
Providence	2	105	2	105				
Bristol and Warren	1	38	1	38				
Newport	1	27	1	27				
Connecticut	12	2,224	11	2,054	1	170		
Stonington	8	2,079	7	1,900	1	170		
New London	1	18	1	18				
New Haven	2	109	2	109				
Fairfield	1	18	1	18				
New York:								
New York	47	6,337	40	2,368	6	3,964	1	65
New Jersey	6	221	6	221				
Newark	1	30	1	30				
Perth Amboy	3	132	3	132				
Great Egg Harbor	1	11	1	11				
Burlington	1	48	1	48				
Pennsylvania:								
Philadelphia	41	34,264	40	33,853	1	411		
Delaware:								
Delaware	12	5,933	9	3,739	3	2,194		
Maryland:								
Baltimore	6	1,359	6	1,359				
Virginia	5	501	4	376	1	125		
Petersburg	1	37	1	37				
Norfolk and Portsmouth	4	464	3	339	1	125		
North Carolina	8	359	4	151	3	19	1	189
Albemarle	3	19			3	19		
Pamlico	4	317	3	128			1	189
Beaufort	1	23	1	23				
South Carolina	6	980	1	83	4	860	1	37
Georgetown	2	316			1	279	1	37
Charleston	4	664	1	83	3	581		
Florida	11	1,012	6	270	1	105	4	637
St. John	7	370	5	256			2	114
St. Mark	1	105			1	105		
Apalachicola	2	523					2	523
Pensacola	1	14	1	14				

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1883—Continued.

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Alabama:								
Mobile.....	1	76			1	76		
Louisiana:								
Teche.....	2	73	1	12			1	61
Texas:								
Galveston.....	2	65	1	21			1	44

1884

Total.....	197	49,036	169	42,479	11	4,328	17	2,229
Maine.....	11	2,702	11	2,702				
Bangor.....	1	45	1	45				
Bath.....	7	2,599	7	2,599				
Portland and Falmouth.....	3	58	3	58				
Massachusetts.....	9	921	8	850			1	71
Boston and Charlestown.....	8	894	7	823			1	71
New Bedford.....	1	27	1	27				
Rhode Island.....	16	407	16	407				
Providence.....	5	142	5	142				
Bristol and Warren.....	6	231	6	231				
Newport.....	5	34	5	34				
Connecticut.....	9	430	7	292	2	138		
Stonington.....	1	115			1	115		
Middletown.....	2	55	1	32	1	23		
New Haven.....	4	139	4	139				
Fairfield.....	2	121	2	121				
New York.....	50	8,564	47	8,172	2	360	1	32
New York.....	48	7,070	45	6,678	2	360	1	32
Sag Harbor.....	2	1,494	2	1,494				
New Jersey.....	2	135	2	135				
Newark.....	1	59	1	59				
Perth Amboy.....	1	76	1	76				
Pennsylvania:								
Philadelphia.....	35	23,046	33	22,090	1	863	1	73
Delaware:								
Delaware.....	12	7,669	10	5,827	2	1,842		
Maryland.....	11	1,536	10	689	1	847		
Baltimore.....	10	1,454	9	607	1	847		
Eastern.....	1	82	1	82				
District of Columbia:								
Georgetown.....	1	38	1	38				
Virginia.....	8	746	7	473			1	272
Alexandria.....	3	173	3	173				
Richmond.....	1	72	1	72				
Yorktown.....	1	17	1	17				
Norfolk and Portsmouth.....	3	484	2	211			1	272
North Carolina.....	9	560	6	349	2	91	1	120
Albemarle.....	4	218	2	127	2	91		
Pamlico.....	2	123	2	123				
Beaufort.....	1	66	1	66				
Wilmington.....	2	153	1	33			1	120
South Carolina.....	4	348	2	140			2	208
Georgetown.....	2	208					2	208
Charleston.....	2	140	2	140				

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING—FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1884—Continued.

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Georgia.....	6	1,119	1	18	1	167	4	934
Savannah.....	5	1,101			1	167	4	934
Brunswick.....	1	18	1	18				
Florida.....	6	272	3	89			3	183
St. John.....	4	209	2	67			2	142
St. Augustine.....	1	41					1	41
Pensacola.....	1	22	1	22				
Alabama:								
Mobile.....	3	335					3	335
Mississippi:								
Pearl River.....	3	177	3	177				
Louisiana:								
Teche.....	1	20	1	20				
Texas:								
Galveston.....	1	11	1	11				

1885

Total.....	155	44,017	121	30,655	24	12,529	10	833
Maine.....	6	3,417	4	1,675	2	1,742		
Passamaquoddy.....	1	17	1	17				
Bath.....	5	3,400	3	1,658	2	1,742		
Massachusetts:								
Salem and Beverly.....	2	21	2	21				
Rhode Island.....	6	156	6	156				
Providence.....	2	13	2	13				
Bristol and Warren.....	3	107	3	107				
Newport.....	1	36	1	36				
Connecticut.....	12	529	11	516	1	13		
Stonington.....	3	129	3	129				
Middletown.....	2	33	1	20	1	13		
New Haven.....	4	197	4	197				
Fairfield.....	3	170	3	170				
New York.....	46	6,452	38	1,817	8	4,635		
New York.....	43	6,408	35	1,773	8	4,635		
Sag Harbor.....	3	44	3	44				
New Jersey.....	5	155	5	155				
Newark.....	2	37	2	37				
Burlington.....	3	118	3	118				
Pennsylvania:								
Philadelphia.....	24	22,172	23	22,032	1	140		
Delaware:								
Delaware.....	15	6,956	8	2,810	7	4,646		
Maryland:								
Baltimore.....	5	1,074	5	1,074				
District of Columbia:								
Georgetown.....	2	18	2	18				
Virginia:								
Richmond.....	1	18	1	18				
North Carolina.....	2	49	1	10	1	39		
Pamlico.....	1	39			1	39		
Wilmington.....	1	10	1	10				
South Carolina:								
Charleston.....	3	456	2	162	1	294		
Georgia.....	3	606	1	43	1	535	1	28
Savannah.....	2	563			1	535	1	28
Brunswick.....	1	43	1	43				

COMPARATIVE STATISTICS—Continued.

TABLE 28.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1885—Continued.

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Florida	15	1,250	7	393	2	485	6	372
St. John	9	956	3	273	1	413	5	270
Key West	3	118	2	46	1	72		
Apalachicola	2	137	1	35			1	102
Pensacola	1	39	1	39				
Alabama:								
Mobile	3	135	1	46			2	89
Mississippi:								
Pearl River	1	75	1	75				
Louisiana	2	122	2	122				
New Orleans	1	114	1	114				
Teche	1	8	1	8				
Texas:								
Galveston	2	356	1	12			1	314

1886

Total	100	10,096	85	12,809	8	5,929	7	358
Maine	7	942	6	763	1	179		
Bangor	2	110	2	110				
Wiscasset	2	225	1	46	1	179		
Bath	2	315	2	315				
Kennebunk	1	292	1	292				
Massachusetts	6	246	5	230	1	16		
Gloucester	1	22	1	22				
Boston and Charlestown	4	208	4	208				
Fall River	1	16			1	16		
Rhode Island:								
Bristol and Warren	1	52	1	52				
Connecticut	9	3,093	7	508	1	2,555	1	30
Stonington	1	2,555			1	2,555		
New Haven	3	208	2	178			1	30
Fairfield	5	330	5	330				
New York:								
New York	29	3,176	27	1,490	2	1,686		
New Jersey	2	265	2	265				
Newark	1	176	1	176				
Burlington	1	89	1	89				
Pennsylvania:								
Philadelphia	19	6,118	19	6,118				
Delaware:								
Delaware	5	2,150	3	674	2	1,476		
Maryland:								
Baltimore	4	2,065	4	2,065				
Virginia:								
Norfolk and Portsmouth	2	40	2	40				
North Carolina	4	334	2	230	1	17	1	87
Albemarle	1	17			1	17		
Pamlico	1	128	1	128				
Wilmington	2	189	1	102			1	87
Florida	8	304	3	63			5	241
St. John	4	126	3	63			1	63
Key West	1	33					1	33
St. Mark	2	35					2	35
Apalachicola	1	110					1	110
Alabama:								
Mobile	3	276	3	276				
Louisiana:								
Teche	1	35	1	35				

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1887

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	123	38,972	99	29,836	14	8,420	10	716
Maine.....	5	728	4	402	1	326		
Waldoboro.....	1	35	1	35				
Bath.....	3	664	2	338	1	326		
Portland and Falmouth.....	1	29	1	29				
Massachusetts.....	3	2,827	2	56	1	2,771		
Salem.....	1	39	1	39				
Boston and Charlestown.....	2	2,788	1	17	1	2,771		
Rhode Island:								
Bristol and Warren.....	2	52	2	52				
Connecticut.....	4	138	3	115	1	23		
New London.....	1	32	1	32				
Hartford.....	2	29	1	6	1	23		
Fairfield.....	1	77	1	77				
New York:								
New York.....	44	6,172	40	4,161	3	1,981	1	30
New Jersey.....	5	240	5	240				
Newark.....	1	9	1	9				
Perth Amboy.....	4	231	4	231				
Pennsylvania:								
Philadelphia.....	20	22,155	18	20,469	2	1,686		
Delaware:								
Delaware.....	10	4,101	7	3,531	1	353	2	217
Maryland:								
Baltimore.....	4	637	3	87	1	550		
Virginia.....	2	276	2	276				
Alexandria.....	1	18	1	18				
Norfolk and Portsmouth.....	1	258	1	258				
North Carolina.....	7	579	5	279			2	300
Albemarle.....	1	9	1	9				
Pamlico.....	2	244	2	244				
Wilmington.....	4	326	2	26			2	300
South Carolina:								
Charleston.....	4	420	2	29	2	391		
Georgia:								
Brunswick.....	1	283			1	283		
Florida.....	6	197	3	109			3	88
St. John.....	2	63	2	63				
Apalachicola.....	1	32					1	32
Pensacola.....	3	102	1	46			2	56
Alabama:								
Mobile.....	3	80	2	24	1	56		
Louisiana:								
Teche.....	2	65	1	6			1	50
Texas:								
Galveston.....	1	22					1	22

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1888

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	161	30,466	128	17,601	18	11,231	15	1,634
Maine.....	9	2,555	9	2,555				
Bath.....	5	2,284	5	2,284				
Portland and Falmouth.....	2	204	2	204				
Kennebunk.....	2	67	2	67				
Massachusetts.....	10	1,430	9	550	1	880		
Newburyport.....	3	81	3	81				
Gloucester.....	1	65	1	65				
Boston and Charlestown.....	5	1,261	4	381	1	880		
Fall River.....	1	23	1	23				
Rhode Island.....	6	193	6	193				
Providence.....	4	129	4	129				
Bristol and Warren.....	2	64	2	64				
Connecticut.....	9	795	6	403	2	244	1	148
Stonington.....	2	366	1	137	1	229		
New London.....	1	34	1	34				
Hartford.....	2	34	1	19	1	15		
New Haven.....	1	148					1	148
Fairfield.....	3	213	3	213				
New York:								
New York.....	39	3,598	36	2,104	3	1,494		
New Jersey.....	9	570	9	570				
Newark.....	2	109	2	109				
Perth Amboy.....	2	129	2	129				
Little Egg Harbor.....	2	177	2	177				
Bridgeton.....	1	59	1	59				
Burlington.....	2	96	2	96				
Pennsylvania:								
Philadelphia.....	17	2,705	17	2,705				
Delaware:								
Delaware.....	17	11,006	13	6,641	4	4,365		
Maryland.....	7	2,961	4	546	2	2,319	1	96
Baltimore.....	6	2,866	3	451	2	2,319	1	96
Eastern.....	1	95	1	95				
District of Columbia:								
Georgetown.....	1	24	1	24				
Virginia:								
Norfolk and Portsmouth.....	3	224	3	224				
North Carolina.....	10	507	6	346	2	24	2	137
Albemarle.....	4	80	2	56	2	24		
Pamlico.....	4	290	4	290				
Beaufort.....	1	55					1	55
Wilmington.....	1	82					1	82
South Carolina:								
Charleston.....	3	43	2	24			1	19
Georgia.....	7	3,157	2	607	3	1,851	2	699
Savannah.....	5	2,458	2	607	3	1,851		
Brunswick.....	2	699					2	699
Florida.....	10	475	5	109			5	366
St. John.....	3	238	2	53			1	185
St. Augustine.....	3	76	2	42			1	34
Key West.....	1	90					1	90
Apalachicola.....	2	57					2	57
Pensacola.....	1	14	1	14				
Alabama:								
Mobile.....	2	91					2	91
Louisiana:								
Teche.....	2	132			1	54	1	78

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE 10 YEARS 1880-1889 (STEAMERS)—Continued.

1880

CUSTOMS DISTRICTS.	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	149	41,308	117	25,989	17	13,680	15	1,639
Maine.....	9	3,193	8	1,541	1	1,652		
Bangor.....	3	365	3	365				
Bath.....	5	2,815	4	1,163	1	1,652		
Portland and Falmouth.....	1	13	1	13				
Massachusetts.....	11	938	11	938				
Newburyport.....	1	71	1	71				
Boston and Charlestown.....	7	760	7	760				
Edgartown.....	1	16	1	16				
Fall River.....	2	91	2	91				
Rhode Island.....	5	393	4	349			1	44
Providence.....	2	115	1	71			1	44
Bristol and Warren.....	2	232	2	232				
Newport.....	1	46	1	46				
Connecticut.....	8	3,850	6	414	2	3,436		
Stonington.....	4	3,495	3	95	1	3,400		
New London.....	1	186	1	186				
Hartford.....	1	19	1	19				
New Haven.....	2	150	1	114	1	36		
New York:								
New York.....	39	4,166	38	4,106	1	60		
New Jersey.....	11	860	11	860				
Perth Amboy.....	8	777	8	777				
Little Egg Harbor.....	1	52	1	52				
Burlington.....	2	31	2	31				
Pennsylvania:								
Philadelphia.....	19	16,458	18	11,864	1	4,594		
Delaware:								
Delaware.....	8	6,237	5	4,764	2	1,308	1	165
Maryland:								
Baltimore.....	6	2,188	5	601	1	1,587		
District of Columbia:								
Georgetown.....	2	88	2	88				
Virginia.....	2	174	2	174				
Richmond.....	1	72	1	72				
Norfolk and Portsmouth.....	1	102	1	102				
North Carolina.....	9	359	3	113	3	47	3	199
Albemarle.....	3	162			2	19	1	143
Pamlico.....	3	146	2	97			1	49
Wilmington.....	3	51	1	16	1	28	1	7
South Carolina.....	2	117	1	27	1	90		
Georgetown.....	1	90			1	90		
Charleston.....	1	27	1	27				
Georgia.....	4	1,588	1	11	1	747	2	830
Savannah.....	1	747			1	747		
Brunswick.....	3	841	1	11			2	830
Florida.....	5	200			1	9	4	191
Tampa.....	1	9			1	9		
St. Mark.....	2	22					2	22
Pensacola.....	2	169					2	169
Alabama:								
Mobile.....	1	116					1	116
Mississippi:								
Pearl River.....	2	139	2	139				
Louisiana:								
Teche.....	3	144			1	64	2	80
Texas:								
Galveston.....	3	100			2	86	1	14

CONGRESSIONAL APPROPRIATIONS.

TABLE 39.—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE RIVERS AND HARBORS OF THE ATLANTIC COAST AND GULF OF MEXICO, BY PERIODS FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, BY LOCALITIES.

SUMMARY.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
Total.....	1821	\$37,480,428	\$33,293,406	\$8,808,850	\$79,582,684
Maine.....	1826	1,305,884	766,250	418,500	2,490,634
New Hampshire.....	1836	105,000	214,500	88,000	407,500
Massachusetts.....	1824	2,657,999	1,068,750	506,500	4,833,249
Rhode Island.....	1827	577,700	746,250	215,000	1,538,950
Connecticut.....	1821	1,252,777	1,185,550	325,000	2,763,327
New York.....	1829	4,304,568	3,881,000	1,100,000	9,285,568
New Jersey.....	1829	551,063	1,166,975	175,000	1,893,038
Pennsylvania.....	1826	351,100	344,750	50,000	745,850
Delaware.....	1822	3,108,665	814,500	128,100	4,111,265
Maryland.....	1836	1,355,318	1,750,775	407,500	3,513,593
District of Columbia.....	1833	501,500	1,825,000	280,000	2,606,500
Virginia.....	1829	1,292,580	1,684,800	508,000	3,485,380
North Carolina.....	1826	1,919,050	1,910,250	440,000	4,269,300
South Carolina.....	1826	550,000	1,895,000	583,000	3,028,000
Georgia (on the Atlantic).....	1826	1,120,597	1,285,609	512,500	2,918,706
Florida (on the Atlantic).....	1829	146,570	982,000	240,500	1,369,070
Florida (on the Gulf of Mexico).....	1828	230,280	579,500	135,500	945,280
Georgia (a).....	1874	23,300	4,000		27,300
Alabama.....	1826	821,752	1,301,750	524,000	2,617,502
Mississippi.....	1827	76,400	311,125	60,000	447,525
Louisiana.....	1836	7,767,489	591,647	220,000	8,579,136
Texas.....	1852	1,247,200	4,342,500	883,150	6,472,850
Miscellaneous.....	1828	1,321,500	3,772,350	968,000	6,061,850
General appropriations.....	1841	4,832,127	258,575		5,090,702

ATLANTIC COAST.

MAINE.....	1826	1,305,884	766,250	418,500	2,490,634
Bagaduce river.....	1890			4,000	4,000
Bar Harbor (breakwater).....	1888		50,000	50,000	100,000
Bath gut.....	1870	33,500			33,500
1880.....			7,000		7,000
1881.....			5,000		5,000
Total for Bath gut.....	1870	33,500	12,000		45,500
Belfast harbor.....	1826	23,200			23,200
1880.....			3,000		3,000
1890.....				10,000	10,000
Total for Belfast harbor.....	1826	23,200	3,000	10,000	36,200
Camden harbor.....	1873	30,000			30,000
1888.....			5,000		5,000
1890.....				6,000	6,000
Total for Camden harbor.....	1873	30,000	5,000	6,000	41,000
Cathance river.....	1880		10,000		10,000
1881.....			6,000		6,000
1892.....			5,000		5,000
Total for Cathance river.....	1880		21,000		21,000
Cobscook bay.....	1836	5,300			5,300
Harriseeket river.....	1890			10,000	10,000
Kennebec river.....	1827	145,520			145,520
1890.....				50,000	50,000
Total for Kennebec river.....	1827	145,520		50,000	195,520
Kennebunk river.....	1829	61,175			61,175
1880.....			2,000		2,000
1881.....			2,000		2,000
1890.....				20,000	20,000
Total for Kennebunk river.....	1829	61,175	4,000	20,000	85,175

a Rivers emptying into other rivers which flow into the Gulf of Mexico.

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
MAINE—Continued.					
Lubec channel	1879	a\$10,000			\$10,000
	1880		\$20,000		20,000
	1881		45,000		45,000
	1882		20,000		20,000
	1884		10,000		10,000
	1886		10,000		10,000
	1888		20,000		20,000
Total for Lubec channel	1879	10,000	125,000		135,000
Machias river	1873	32,000			32,000
Matinicus island	1873	1,000			1,000
Moosebeec bar	1881		10,000		10,000
	1882		10,000		10,000
	1884		10,000		10,000
	1886		10,000		10,000
	1888		15,000		15,000
	1890			\$15,000	15,000
Total for Moosebeec bar	1881		55,000	15,000	70,000
Narraguagus river	1871	22,000			22,000
	1886		20,000		20,000
	1890			7,500	7,500
Total for Narraguagus river	1871	22,000	20,000	7,500	49,500
Owls Head harbor	1836	17,902			17,902
Penobscot river	1829	198,300			198,300
	1890			25,000	25,000
Total for Penobscot river	1829	198,300		25,000	223,300
Piscataqua river	1826	8,510			8,510
Portland harbor	1836	351,477			351,477
	1881		20,000		20,000
	1882		35,000		35,000
	1884		60,000		60,000
	1888		40,000		40,000
	1890			40,000	40,000
Portland harbor (Back cove)	1846		28,250		28,250
	1890			25,000	25,000
Total for Portland harbor	1836	351,477	181,250	65,000	597,727
Pleasant river	1890			3,500	3,500
Richmond harbor	1881		10,000		10,000
	1882		10,000		10,000
Total for Richmond harbor	1881		20,000		20,000
Richmond island	1852	114,000			114,000
	1880		3,000		3,000
	1881		3,000		3,000
Total for Richmond island	1852	114,000	6,000		120,000
Rockport harbor	1886		10,000		10,000
	1890			5,000	5,000
Total for Rockport harbor	1886		10,000	5,000	15,000
Rockland harbor	1880		20,000		20,000
	1882		40,000		40,000
	1884		40,000		40,000
	1886		22,500		22,500
	1888		30,000		30,000
	1890			37,500	37,500
Total for Rockland harbor	1880		152,500	37,500	190,000

a In addition to the unexpended balance of the St. Croix river appropriation. See St. Croix river.

ATLANTIC COAST AND GULF OF MEXICO.

117

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
MAINE—Continued.					
Royal river	1871	\$20,000			\$20,000
	1882		\$10,000		10,000
Total for Royal river	1871	20,000	10,000		30,000
Saco river breakwater	1866	40,000			40,000
	1884		15,000		15,000
	1886		12,500		12,500
	1888		12,500		12,500
	1890			\$65,000	65,000
Total for Saco river breakwater	1866	40,000	40,000	65,000	145,000
Saco river	1827	87,000			87,000
	1886		12,500		12,500
	1888		10,000		10,000
Total for Saco river	1827	87,000	22,500		109,500
St. Croix river	1867	a35,000			35,000
	1881		4,000		4,000
	1890			635,000	35,000
Total for St. Croix river	1867	35,000	4,000	35,000	74,000
Sullivan river	1871	35,000			35,000
Union river	1870	30,000			30,000
Wells harbor	1872	5,000			5,000
York harbor	1886		25,000		25,000
	1890			10,000	10,000
Total for York harbor	1886		25,000	10,000	35,000
NEW HAMPSHIRE.					
	1836	105,000	214,500	88,000	407,500
Belamy river	1888		10,000		10,000
	1890			10,000	10,000
Total for Belamy river	1888		10,000	10,000	20,000
Cochecho river	1836	95,000			95,000
	1890			25,000	25,000
Total for Cochecho river	1836	95,000		25,000	120,000
Exeter river	1880		20,000		20,000
	1881		15,000		15,000
Total for Exeter river	1880		35,000		35,000
Lamprey river	1881		20,000		20,000
Little harbor (harbor of refuge)	1886		30,000		30,000
	1890			40,000	40,000
Total for Little harbor	1886		30,000	40,000	70,000
Portsmouth harbor	1879	10,000			10,000
	1880		25,000		25,000
	1881		20,000		20,000
	1882		17,000		17,000
	1884		20,000		20,000
	1886		30,000		30,000
	1890			13,000	13,000
Total for Portsmouth harbor	1879	10,000	112,000	13,000	135,000
Winnepesaukee lake	1880		5,000		5,000
	1881		2,500		2,500
Total for Winnepesaukee lake	1880		7,500		7,500

a Of this amount, \$1,000 only were expended, the balance being transferred to the Lubec channel work March 3, 1879.

b Conditional on the Dominion of Canada expending a like sum.

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
MASSACHUSETTS	1824	\$2, 657, 999	\$1, 668, 750	\$506, 500	\$4, 833, 249
Bass river.....	1829	\$20, 150			20, 150
Boston harbor.....	1825	1, 701, 526			1, 701, 526
	1880		75, 000		75, 000
	1881		100, 000		100, 000
	1882		96, 500		96, 500
	1884		5, 000		5, 000
	1886		67, 250		67, 250
	1888		125, 000		125, 000
	1890			150, 000	150, 000
Total for Boston harbor.....	1825	1, 701, 526	468, 750	150, 000	2, 320, 276
Duxbury harbor.....	1872	20, 000			20, 000
East Dennis breakwater.....	1852	1, 500			1, 500
Edgartown harbor.....	1826	23, 000			23, 000
	1890			2, 000	2, 000
Total for Edgartown harbor.....	1826	23, 000		2, 000	25, 000
Fall River harbor.....	1874	30, 000			30, 000
Gloucester harbor.....	1872	10, 000			10, 000
	1886		5, 000		5, 000
	1888		10, 000		10, 000
	1890			15, 000	15, 000
Total for Gloucester harbor.....	1872	10, 000	15, 000	15, 000	40, 000
Hyannis harbor.....	1827	118, 432			118, 432
	1881		5, 000		5, 000
	1886		20, 000		20, 000
	1890			8, 000	8, 000
Total for Hyannis harbor.....	1827	118, 432	25, 000	8, 000	151, 432
Ipawich river.....	1886		5, 000		5, 000
Lynn harbor.....	1882		76, 000		76, 000
	1890			15, 000	15, 000
Total for Lynn harbor.....	1882		76, 000	15, 000	91, 000
Malden river.....	1882		10, 000		10, 000
Manchester harbor.....	1886		2, 500		2, 500
	1890			5, 000	5, 000
Total for Manchester harbor.....	1886		2, 500	5, 000	7, 500
Marblehead harbor.....	1825	900			900
Merrimac river.....	1828	197, 367			197, 367
	1880		12, 000		12, 000
	1881		18, 000		18, 000
	1884		3, 500		3, 500
	1890			10, 000	10, 000
Total for Merrimac river.....	1828	197, 367	33, 500	10, 000	240, 867
Nantucket harbor.....	1828	45, 835			45, 835
	1880		50, 000		50, 000
	1881		50, 000		50, 000
	1884		10, 000		10, 000
	1886		15, 000		15, 000
	1888		20, 000		20, 000
	1890			25, 000	25, 000
Total for Nantucket harbor.....	1828	45, 835	145, 000	25, 000	215, 835
New Bedford harbor.....	1836	37, 691			37, 691
	1888		10, 000		10, 000
	1890			10, 000	10, 000
Total for New Bedford harbor.....	1836	37, 691	10, 000	10, 000	57, 691
Newburyport harbor.....	1880		50, 000		50, 000
	1881		120, 000		120, 000
	1886		37, 500		37, 500
	1888		25, 000		25, 000
	1890			25, 000	25, 000
Total for Newburyport harbor.....	1880		232, 500	25, 000	257, 500

ATLANTIC COAST AND GULF OF MEXICO.

119

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
MASSACHUSETTS—Continued.					
Plymouth beach and harbor.....	1824	\$106,267			\$106,267
	1880		\$20,000		20,000
	1882		14,000		14,000
	1886		6,000		6,000
	1888		6,000		6,000
	1890			\$8,000	8,000
Total for Plymouth beach and harbor.....	1824	106,267	46,000	8,000	160,267
Powow river.....	1888		3,000		3,000
	1890			5,000	5,000
Total for Powow river.....	1888		3,000	5,000	8,000
Provincetown harbor.....	1826	121,418			121,418
	1890		500		500
	1881		10,000		10,000
	1884		2,000		2,000
	1886		3,000		3,000
	1888		7,000		7,000
	1890			7,500	7,500
Total for Provincetown harbor.....	1826	121,418	22,500	7,500	151,418
Salem harbor.....	1873	25,000			25,000
	1890			14,000	14,000
Total for Salem harbor.....	1873	25,000		14,000	39,000
Sandy bay breakwater.....	1829	69,233			69,233
	1884		300,000		300,000
	1890			150,000	150,000
Total for Sandy bay breakwater.....	1829	69,233	300,000	150,000	519,233
Scituate harbor.....	1829	1,180			1,180
	1880		7,500		7,500
	1881		10,000		10,000
	1890			10,000	10,000
Total for Scituate harbor.....	1829	1,180	17,500	10,000	28,680
Stage harbor.....	1890			5,000	5,000
Taunton river.....	1870	66,000			66,000
	1880		17,500		17,500
	1881		50,000		50,000
	1884		26,500		26,500
	1890			7,000	7,000
Total for Taunton river.....	1870	66,000	94,000	7,000	167,000
Vineyard Haven harbor.....	1888		25,000		25,000
	1890			10,000	10,000
Total for Vineyard Haven harbor.....	1888		25,000	10,000	35,000
Wareham harbor.....	1872	40,000			40,000
	1881		10,000		10,000
	1882		5,000		5,000
	1884		10,000		10,000
	1886		15,000		15,000
	1888		4,000		4,000
	1890			5,000	5,000
Total for Wareham harbor.....	1872	40,000	44,000	5,000	89,000
Wellfleet harbor.....	1872	5,000			5,000
	1890			4,000	4,000
Total for Wellfleet harbor.....	1872	5,000		4,000	9,000
Westport harbor.....	1886		1,000		1,000
	1890			1,000	1,000
Total for Westport harbor.....	1886		1,000	1,000	2,000
Weymouth river.....	1890			10,000	10,000
Winthrop harbor.....	1886		1,000		1,000
	1890			5,000	5,000
Total for Winthrop harbor.....	1886		1,000	5,000	6,000

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
MASSACHUSETTS—Continued.					
Woods Holl harbor	1852	\$17,500			\$17,500
	1882		\$52,000		52,000
	1884		25,000		25,000
	1886		14,500		14,500
Total for Woods Holl harbor	1852	17,500	91,500		109,000
RHODE ISLAND.	1827	577,700	746,250	\$215,000	1,538,950
Block Island harbor	1870	285,000			285,000
	1880		6,000		6,000
	1882		19,000		19,000
	1884		15,000		15,000
	1886		20,000		20,000
	1888		15,000		15,000
	1890			15,000	15,000
Total for Block Island harbor	1870	285,000	75,000	15,000	375,000
Church cove	1827	28,200			28,200
Coaster harbor	1890			5,500	5,500
Greenwich bay	1890			2,000	2,000
Newport harbor	1873	28,500			28,500
	1881		92,000		92,000
	1890			12,500	12,500
Total for Newport harbor	1873	28,500	92,000	12,500	133,000
Pawtucket river	1867	52,000			52,000
	1884		115,000		115,000
	1890			30,000	30,000
Total for Pawtucket river	1867	52,000	115,000	30,000	197,000
Point Judith harbor	1890			75,000	75,000
Potowomut river	1881		5,000		5,000
Providence river and Green Jacket shoal	1890			25,000	25,000
Providence river and Narragansett bay	1852	174,000			174,000
	1880		60,000		60,000
	1881		60,000		60,000
	1882		125,000		125,000
	1884		85,000		85,000
	1886		56,250		56,250
	1888		68,000		68,000
	1890			50,000	50,000
Total for Providence river and Narragansett bay	1852	174,000	454,250	50,000	678,250
Warren river	1886		5,000		5,000
Wickford harbor	1873	10,000			10,000
CONNECTICUT.	1821	1,252,777	1,185,550	325,000	2,763,327
Black Rock harbor	1884		35,000		35,000
	1890			5,000	5,000
Total for Black Rock harbor	1884		35,000	5,000	40,000
Bridgeport harbor	1836	175,000			175,000
	1880		10,000		10,000
	1881		10,000		10,000
	1882		10,000		10,000
	1884		5,000		5,000
	1886		20,000		20,000
	1888		10,000		10,000
	1890			20,000	20,000
Total for Bridgeport harbor	1836	175,000	65,000	20,000	260,000
Cedar Point beach	1836	1,000			1,000
Clinton harbor	1882		3,000		3,000
	1890			3,500	3,500
Total for Clinton harbor	1882		3,000	3,500	6,500

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1890, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
CONNECTICUT—Continued.					
Connecticut river	1870	\$40,000			\$40,000
Connecticut river above Hartford	1829	65,130			65,130
	1880		\$15,000		15,000
Connecticut river below Hartford	1871	195,000			195,000
	1880		10,000		10,000
	1881		30,000		30,000
	1882		45,000		45,000
	1884		35,000		35,000
	1886		26,250		26,250
	1888		10,000		10,000
	1890			\$12,500	12,500
Total for Connecticut river	1829	300,130	171,250	12,500	483,880
Duck Island harbor	1890			25,000	25,000
Five Mile river	1888		5,000	5,000	10,000
Housatonic river	1870	60,000			60,000
	1880		2,000		2,000
	1881		2,000		2,000
	1882		2,000		2,000
	1884		2,500		2,500
	1886		5,000		5,000
	1888		35,000		35,000
	1890			35,000	35,000
Total for Housatonic river	1870	60,000	48,500	35,000	143,500
Milford harbor	1874	28,000			28,000
	1880		5,000		5,000
	1882		5,000		5,000
	1888		5,000		5,000
	1890			2,500	2,500
Total for Milford harbor	1874	28,000	15,000	2,500	45,500
Mill river	1820	10,587			10,587
Mystic river	1890			10,000	10,000
New Haven breakwater	1879	30,000			30,000
	1880		30,000		60,000
	1881		60,000		60,000
	1882		60,000		60,000
	1884		40,000		40,000
	1886		75,000		75,000
	1888		75,000		75,000
	1890			120,000	120,000
Total for New Haven breakwater	1879	30,000	340,000	120,000	490,000
New Haven harbor	1872	171,000			171,000
	1880		15,000		15,000
	1881		15,000		15,000
	1882		30,000		30,000
	1884		10,000		10,000
	1886		20,000		20,000
	1888		15,000		15,000
	1890			15,000	15,000
Total for New Haven harbor	1872	171,000	105,000	15,000	291,000
New London	1880		10,800		10,800
Norwalk harbor	1829	53,080			53,080
	1880		5,000		5,000
	1881		5,000		5,000
	1882		5,000		5,000
	1884		5,000		5,000
	1886		3,000		3,000
	1888		28,000		28,000
	1890			4,000	4,000
Total for Norwalk harbor	1829	53,080	51,000	4,000	108,080
Saybrook harbor	1836	39,182			39,182
Southport harbor	1836	12,500			12,500
	1880		2,500		2,500
	1881		2,500		2,500
	1882		3,000		3,000
Total for Southport harbor	1836	12,500	8,000		20,500

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
CONNECTICUT—Continued.					
Stamford harbor	1829	\$100			\$100
	1880		\$10,000		10,000
	1888		5,000		5,000
	1890			\$5,000	5,000
Total for Stamford harbor	1829	100	15,000	5,000	20,100
Stonington harbor	1827	184,454			184,454
	1880		25,000		25,000
	1881		30,000		30,000
	1882		25,000		25,000
	1884		10,000		10,000
	1886		20,000		20,000
	1888		8,000		8,000
	1890			12,500	12,500
Total for Stonington harbor	1827	184,454	118,000	12,500	314,954
Thames river	1821	169,300			169,300
	1880		22,500		22,500
	1881		30,000		30,000
	1882		35,000		35,000
	1884		25,000		25,000
	1886		22,500		22,500
	1888		50,000		50,000
	1890			20,000	20,000
Total for Thames river	1821	169,300	185,000	20,000	374,300
Westport harbor (Sangatuck)	1826	18,444			18,444
	1886		1,000		1,000
Total for Westport harbor	1826	18,444	1,000		19,444
Wilson Point harbor	1890			30,000	30,000
NEW YORK					
	1829	4,301,568	3,881,000	1,100,000	9,285,568
Brown creek	1890			12,000	12,000
Canarsie bay	1880		10,000		10,000
	1881		5,000		5,000
	1882		3,000		3,000
	1884		5,000		5,000
	1886		10,000		10,000
	1888		10,000		10,000
	1890			5,000	5,000
Total for Canarsie bay	1880		43,000	5,000	48,000
East Chester creek	1873	50,500			50,500
	1880		3,500		3,500
	1886		10,000		10,000
	1888		5,000		5,000
Total for East Chester creek	1873	50,500	18,500		69,000
East river and Hell Gate	1852	2,295,000			2,295,000
	1880		200,000		200,000
	1881		200,000		200,000
	1882		250,000		250,000
	1884		300,000		300,000
	1886		112,500		112,500
	1888		250,000		250,000
	1890			200,000	200,000
Total for East river and Hell Gate	1852	2,295,000	1,372,500	200,000	3,867,500
Echo harbor	1878	13,000			13,000
	1880		3,000		3,000
	1881		3,000		3,000
	1882		3,000		3,000
Total for Echo harbor	1878	13,000	9,000		22,000
Flushing bay	1879	20,000			20,000
	1880		15,000		15,000
	1881		10,000		10,000
	1882		5,000		5,000
	1884		10,000		10,000
	1886		10,000		10,000
	1888		15,000		15,000
	1890			20,000	20,000
Total for Flushing bay	1879	20,000	65,000	20,000	105,000

ATLANTIC COAST AND GULF OF MEXICO.

123

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
NEW YORK—Continued.					
Glen Cove harbor	1888		\$20,000		\$20,000
	1890			\$15,000	15,000
Total for Glen Cove harbor	1888		20,000	15,000	35,000
Gowanus bay	1881		40,000		40,000
	1882		20,000		20,000
	1883		5,000		5,000
	1886		7,500		7,500
	1888		60,000		60,000
	1890			160,000	160,000
Total for Gowanus bay	1881		132,500	160,000	292,500
Greenport harbor	1882		10,000		10,000
	1884		10,000		10,000
	1886		5,000		5,000
	1888		5,000		5,000
	1890			5,000	5,000
Total for Greenport harbor	1882		30,000	5,000	35,000
Harlem river	1875	\$410,000			410,000
	1888		70,000		70,000
	1890			250,000	250,000
Total for Harlem river	1875	410,000	70,000	250,000	730,000
Hudson river	1834	1,190,188			1,190,188
	1880		20,000		20,000
	1881		15,000		15,000
	1882		10,000		10,000
	1884		30,000		30,000
	1886		28,250		28,250
	1888		75,000		75,000
	1890			150,000	150,000
Total for Hudson river	1834	1,190,188	176,250	150,000	1,516,438
Huntington harbor	1872	22,500			22,500
	1890			10,000	10,000
Total for Huntington harbor	1872	22,500		10,000	32,500
Larchmont harbor	1890			5,000	5,000
Mamaroneck harbor	1882		15,000		15,000
New Rochelle harbor	1881		20,000		20,000
	1882		15,000		15,000
Total for New Rochelle harbor	1881		35,000		35,000
Newtown creek	1880		10,000		10,000
	1882		15,000		15,000
	1884		20,000		20,000
	1886		37,500		37,500
	1888		25,000		25,000
	1890			35,000	35,000
Total for Newtown creek	1880		107,500	35,000	142,500
New York harbor:					
Buttevuilk channel	1880		60,000		60,000
	1881		60,000		60,000
	1882		60,000		60,000
	1884		10,000		10,000
	1886		56,250		56,250
	1888		100,000		100,000
	1884		200,000		200,000
	1886		750,000		750,000
	1888		380,000		380,000
	1890			160,000	160,000
Sandy Hook channel	1868	116,530			116,530
Staten Island Icebreaker	1836	19,500			19,500
Total for New York harbor	1836	136,030	1,676,250	160,000	1,972,280
Patchogue river	1860			15,000	15,000
Port Chester harbor	1872	12,000			12,000
	1882		15,000		15,000
	1888		5,000		5,000
	1890			5,000	5,000
Total for Port Chester harbor	1872	12,000	20,000	5,000	37,000

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
NEW YORK—Continued.					
Port Jefferson harbor.....	1852	\$65, 200			\$65, 200
	1880		\$3, 000		3, 000
	1881		4, 000		4, 000
	1882		8, 000		8, 000
	1890			\$25, 000	25, 000
Total for Port Jefferson harbor	1852	65, 200	15, 000	25, 000	105, 200
Rondout harbor.....	1872	90, 000			90, 000
	1882		2, 000		2, 000
	1884		1, 000		1, 000
	1886		2, 500		2, 500
	1888		5, 000		5, 000
	1890			5, 000	5, 000
Total for Rondout harbor	1872	90, 000	10, 500	5, 000	105, 500
Sag harbor.....	1829	150			150
Saugerties harbor.....	1884		5, 000		5, 000
	1886		15, 000		15, 000
	1888		12, 000		12, 000
	1890			10, 000	10, 000
Total for Saugerties harbor	1884		32, 000	10, 000	42, 000
Sheepshead bay.....	1880		3, 000		3, 000
	1881		5, 000		5, 000
	1882		3, 000		3, 000
	1884		5, 000		5, 000
	1886		5, 000		5, 000
	1888		5, 000		5, 000
Total for Sheepshead bay	1880		26, 000		26, 000
Sumpawamus bay.....	1881		5, 000		5, 000
	1882		2, 000		2, 000
Total for Sumpawamus bay	1881		7, 000		7, 000
Wappinger creek.....	1890			13, 000	13, 000
NEW JERSEY					
	1829	551, 063	1, 166, 975	175, 000	1, 893, 038
Alloway creek.....	1890			6, 000	6, 000
Atlantic City harbor.....	1886		5, 000		5, 000
Cheesequake creek.....	1880		20, 000		20, 000
	1881		5, 000		5, 000
	1882		15, 000		15, 000
Total for Cheesequake creek.....	1880		40, 000		40, 000
Cohansey creek.....	1873	19, 500			19, 500
	1880		4, 500		4, 500
	1881		7, 000		7, 000
	1882		5, 000		5, 000
Total for Cohansey creek.....	1873	19, 500	16, 500		36, 000
Cranberry inlet.....	1852	1, 000			1, 000
Elizabeth river.....	1879	7, 500			7, 500
	1880		7, 500		7, 500
	1881		4, 000		4, 000
	1882		8, 000		8, 000
	1890			5, 000	5, 000
Total for Elizabeth river.....	1879	7, 500	19, 500	5, 000	32, 000
Flat Beach.....	1829	100			100
Keyport harbor.....	1882		30, 475		30, 475
Little Egg Harbor.....	1836	23, 500			23, 500
Manasquan river.....	1879	12, 000			12, 000
	1880		20, 000		20, 000
	1882		7, 000		7, 000
Total for Manasquan river.....	1879	12, 000	27, 000		39, 000
Mantua creek.....	1882		3, 000		3, 000

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
NEW JERSEY—Continued.					
Mattawan creek.....	1882		\$21,000		\$21,000
	1890			\$2,500	2,500
Total for Mattawan creek.....	1882		21,000	2,500	23,500
Maurice river.....	1882		3,000		3,000
	1884		17,000		17,000
	1886		5,000		5,000
	1888		10,000		10,000
	1890			8,000	8,000
Total for Maurice river.....	1882		35,000	8,000	43,000
Newark bay.....	1852	\$12,000			12,000
New Brunswick harbor.....	1836	13,963			13,963
Passaic river above Newark.....	1872	112,000			112,000
	1880		2,000		2,000
	1882		7,000		7,000
	1884		3,000		3,000
	1886		2,250		2,250
	1888		7,500		7,500
	1890			41,500	41,500
Passaic river below Newark.....	1880		30,000		30,000
	1881		50,000		50,000
	1882		43,000		43,000
	1884		25,000		25,000
	1886		24,000		24,000
	1888		27,500		27,500
Total for Passaic river.....	1872	112,000	221,250	41,500	374,750
Raccoon river.....	1882		3,000		3,000
Rahway river.....	1879	10,000			10,000
	1880		10,000		10,000
	1881		10,000		10,000
	1882		7,000		7,000
Total for Rahway river.....	1879	10,000	27,000		37,000
Rancocas river.....	1881		10,000		10,000
	1882		10,000		10,000
Total for Rancocas river.....	1881		20,000		20,000
Raritan bay.....	1881		50,000		50,000
	1882		50,000		50,000
	1884		20,000		20,000
	1886		37,500		37,500
	1888		25,000		25,000
	1890			40,000	40,000
Total for Raritan bay.....	1881		182,500	40,000	222,500
Raritan river.....	1878	280,000			280,000
	1880		100,000		100,000
	1881		25,000		25,000
	1882		25,000		25,000
	1884		35,000		35,000
	1886		26,250		26,250
	1888		50,000		50,000
	1890			50,000	50,000
Total for Raritan river.....	1878	280,000	261,250	50,000	571,250
Salem river.....	1871	7,000			7,000
	1880		3,000		3,000
	1881		3,000		3,000
	1882		1,500		1,500
Total for Salem river.....	1871	7,000	7,500		14,500
Shoal harbor.....	1890			5,000	5,000
Shrewsbury river.....	1852	48,800			48,800
	1880		30,000		30,000
	1881		86,000		86,000
	1882		30,000		30,000
	1886		10,000		10,000
	1888		10,000		10,000
	1890			10,000	10,000
Total for Shrewsbury river.....	1852	48,800	166,000	10,000	224,800

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
NEW JERSEY—Continued.					
South river	1871	\$20,000			\$20,000
	1880		\$40,000		40,000
	1881		6,000		6,000
	1882		10,000		10,000
	1886		5,000		5,000
	1888		5,000		5,000
	1890			\$5,000	5,000
Total for South river	1871	20,000	66,000	5,000	91,000
Squan river	1890			2,000	2,000
Woodbridge creek	1879	4,000			4,000
	1880		5,000		5,000
	1881		5,000		5,000
	1882		5,000		5,000
Total for Woodbridge creek	1879	4,000	15,000		19,000
PENNSYLVANIA.....					
	1826	351,100	344,750	50,000	745,850
Chester harbor and creek	1826	27,100			27,100
	1881		3,000		3,000
	1882		3,000		3,000
Total for Chester harbor and creek	1826	27,100	6,000		33,100
Frankford creek	1882		10,000		10,000
Marcus Hook harbor	1829	104,000			104,000
	1880		35,000		35,000
	1881		30,000		30,000
	1882		15,000		15,000
	1886		15,000		15,000
	1888		15,000		15,000
	1890			5,000	5,000
Total for Marcus Hook harbor	1829	104,000	110,000	5,000	219,000
Schuylkill river	1870	220,000			220,000
	1880		40,000		40,000
	1881		40,000		40,000
	1882		25,000		25,000
	1884		25,000		25,000
	1886		18,750		18,750
	1888		25,000		25,000
	1890			45,000	45,000
Total for Schuylkill river	1870	220,000	173,750	45,000	438,750
Susquehanna river (North branch)	1880		15,000		15,000
	1881		15,000		15,000
	1882		15,000		15,000
Total for Susquehanna river	1880		45,000		45,000
DELAWARE					
	1822	3,168,665	814,500	128,100	4,111,265
Appoquinimink creek	1890			5,000	5,000
Broad creek	1880		5,000		5,000
	1881		10,000		10,000
	1882		5,000		5,000
	1886		10,000		10,000
	1888		5,000		5,000
Total for Broad creek	1880		35,000		35,000
Broadkill river	1873	10,000			10,000
	1880		5,000		5,000
	1881		5,000		5,000
	1882		5,000		5,000
	1888		10,000		10,000
Total for Broadkill river	1873	10,000	25,000		35,000
Chesapeake and Delaware ship canal	1873	15,000			15,000
	1882		10,000		10,000
Total for Chesapeake and Delaware ship canal	1873	15,000	10,000		25,000

^a See Maryland.^b For survey. The cost of canal has been variously estimated at from \$7,000,005 to \$41,500,000.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 33.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1890, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
DELAWARE—Continued.					
Delaware bay and harbor:					
Breakwater.....	1822	\$2,392,104			\$2,392,104
	1880		\$25,000		25,000
	1882		125,000		125,000
	1884		75,000		75,000
	1886		56,250		56,250
	1888		100,000		100,000
	1890			\$80,000	80,000
Ice harbor.....	1882		25,000		25,000
Lewes pier.....	1870	335,500			335,500
	1880		10,000		10,000
	1881		10,000		10,000
	1882		13,000		13,000
Total for Delaware bay and harbor.....	1822	2,727,604	430,250	80,000	3,246,854
Duck creek.....	1880		5,000		5,000
	1881		3,000		3,000
	1882		2,000		2,000
	1888		10,000		10,000
Total for Duck creek.....	1880		20,000		20,000
Indian river.....	1882		10,000		10,000
Jones river.....	1881		5,000		5,000
	1884		10,000		10,000
	1886		10,000		10,000
	1888		15,000		15,000
Total for Jones river.....	1881		40,000		40,000
Mispillion creek.....	1879	3,000			3,000
	1880		4,000		4,000
	1881		3,500		3,500
	1882		3,000		3,000
	1888		3,500		3,500
Total for Mispillion creek.....	1879	3,000	14,000		17,000
Newcastle harbor.....	1826	211,469			211,469
	1880		8,000		8,000
	1881		20,000		20,000
	1884		2,000		2,000
	1886		5,000		5,000
	1888		7,500		7,500
	1890			8,100	8,100
Total for Newcastle harbor.....	1826	211,469	37,500	8,100	257,069
Reedy Island harbor.....	1827	95,736			95,736
Smyrna river.....	1890			5,000	5,000
Wilmington harbor.....	1836	105,856			105,856
	1880		10,000		10,000
	1881		50,000		50,000
	1882		50,000		50,000
	1884		25,000		25,000
	1886		18,750		18,750
	1888		30,000		30,000
	1890			30,000	30,000
Total for Wilmington harbor.....	1836	105,856	183,750	30,000	319,606
MARYLAND.					
Annapolis harbor.....	1836	1,355,318	1,750,775	407,500	3,513,593
	1880		5,000		5,000
	1881		5,000		5,000
Total for Annapolis harbor.....	1880		10,000		10,000
Baltimore harbor (a).....	1836	815,000			815,000
	1880		100,000		100,000
	1881		150,000		150,000
	1882		450,000		450,000
	1884		250,000		250,000
	1886		150,000		150,000
	1888		300,000		300,000
	1890			340,000	340,000
Total for Baltimore harbor.....	1836	815,000	1,400,000	340,000	2,555,000
Cambridge harbor.....	1871	35,000			35,000
	1888		5,000		5,000
	1890			5,000	5,000
Total for Cambridge harbor.....	1871	35,000	5,000	5,000	45,000

a See Patapsco river.

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
MARYLAND—Continued.					
Chesapeake bay (Battery island).....	1836	\$500			* \$500
	1886		\$17,275		17,275
Total for Chesapeake bay.....	1836	500	17,275		17,775
Chester river.....	1873	28,000			28,000
	1881		6,500		6,500
	1882		6,500		6,500
	1890			\$5,000	5,000
Total for Chester river.....	1873	28,000	13,000	5,000	46,000
Choptank river.....	1880		5,000		5,000
	1881		5,000		5,000
	1882		5,000		5,000
	1884		5,000		5,000
	1886		10,000		10,000
	1888		7,500		7,500
	1890			7,500	7,500
Total for Choptank river.....	1880		37,500	7,500	45,000
Corsica creek.....	1882		5,000		5,000
	1884		5,000		5,000
	1886		10,000		10,000
	1888		10,000		10,000
Total for Corsica creek.....	1882		30,000		30,000
Crisfield harbor.....	1875	37,318			37,318
Deal island passage.....	1881		5,000		5,000
	1882		5,000		5,000
Total for Deal island passage.....	1881		10,000		10,000
Elk river.....	1874	10,000			10,000
	1880		10,000		10,000
	1881		5,000		5,000
	1882		6,500		6,500
	1890			10,000	10,000
Total for Elk river.....	1874	10,000	21,500	10,000	41,500
Fairlee creek.....	1888		5,000		5,000
	1890			5,000	5,000
Total for Fairlee creek.....	1888		5,000	5,000	10,000
Leonardtown harbor (Breton bay).....	1878	9,000			9,000
	1880		3,000		3,000
	1881		3,000		3,000
	1882		5,000		5,000
	1884		3,000		3,000
	1886		6,500		6,500
	1888		3,000		3,000
	1890			5,000	5,000
Total for Leonardtown harbor.....	1878	9,000	23,500	5,000	37,500
Manokin river.....	1890			7,500	7,500
Northeast river.....	1872	10,000			10,000
	1880		5,500		5,500
	1890			2,500	2,500
Total for Northeast river.....	1872	10,000	5,500	2,500	18,000
Patapsco river.....	1852	293,100			293,100
Patuxent river.....	1888		5,000		5,000
	1890			6,000	6,000
Total for Patuxent river.....	1888		5,000	6,000	11,000
Pocomoke river.....	1878	10,000			10,000
	1886		8,000		8,000
Total for Pocomoke river.....	1878	10,000	8,000		18,000
Queenstown harbor.....	1871	14,000			14,000

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
MARYLAND—Continued.					
St. Jerome creek	1881		\$6,500		\$6,500
	1882		5,000		5,000
	1884		15,000		15,000
Total for St. Jerome creek	1881		26,500		26,500
Secretary creek	1880		3,000		3,000
	1881		3,000		3,000
Total for Secretary creek	1880		6,000		6,000
Susquehanna river	1852	\$48,400			48,400
	1880		28,000		28,000
	1881		15,000		15,000
	1882		25,000		25,000
	1884		20,000		20,000
	1886		6,000		6,000
	1888		10,000		10,000
	1890			\$4,000	4,000
Total for Susquehanna river	1852	48,400	104,000	4,000	156,400
Treadhaven creek	1881		6,000		6,000
Wicomico river	1872	32,000			32,000
	1880		5,000		5,000
	1881		2,000		2,000
	1884		10,000		10,000
	1890			10,000	10,000
Total for Wicomico river	1881	33,000	17,000	10,000	60,000
Worton harbor	1872	12,000			12,000
DISTRICT OF COLUMBIA.					
Potomac river	1833	501,500	1,825,000	280,000	2,606,500
	1833	251,500			351,500
	1882		400,000		400,000
	1884		500,000		500,000
	1886		375,000		375,000
	1888		300,000		300,000
Anacostia bridge	1887		110,000		110,000
Great Falls	1882		50,000		50,000
Washington and Georgetown harbors	1873	150,000			150,000
	1880		40,000		40,000
	1881		50,000		50,000
	1890			280,000	280,000
VIRGINIA	1820	1,292,580	1,694,800	508,000	3,495,380
Accotink creek	1872	5,000			5,000
Appomattox and James rivers	1852	45,000			45,000
Appomattox	1871	260,000			260,000
	1880		20,000		20,000
	1881		20,000		20,000
	1882		35,000		35,000
	1884		25,000		25,000
	1886		18,750		18,750
	1888		15,000		15,000
	1890			15,000	15,000
James	1836	530,500			530,500
	1880		75,000		75,000
	1881		60,000		60,000
	1882		75,000		75,000
	1884		75,000		75,000
	1886		112,500		112,500
	1888		225,000		225,000
	1890			200,000	200,000
Total for Appomattox and James rivers	1836	835,500	756,250	215,000	1,806,750
Aquia creek	1872	10,500			10,500
	1890			10,000	10,000
Total for Aquia creek	1872	10,500		10,000	20,500
Archer Hope river	1881		5,000		5,000
	1882		5,000		5,000
Total for Archer Hope river	1881		10,000		10,000

a Of this amount, \$150,000 was appropriated in 1833 for the removal of obstructions in the river, the purchase of Little Falls bridge, and the construction of a turnpike road.

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
VIRGINIA—Continued.					
Blackwater river.....	1878	\$7,500			\$7,500
	1880		\$3,500		3,500
	1881		1,500		1,500
	1882		1,500		1,500
Total for Blackwater river.....	1878	7,500	6,500		14,000
Cape Charles City harbor.....	1890			\$25,000	25,000
Channel from Norfolk to Atlantic ocean.....	1878	20,000			20,000
Chickahominy river.....	1878	6,000			6,000
	1880		2,000		2,000
	1881		2,000		2,000
	1882		5,000		5,000
	1886		4,000		4,000
	1888		2,500		2,500
	1890			2,500	2,500
Total for Chickahominy river.....	1878	6,000	15,500	2,500	24,000
Elizabeth river.....	1829	40,080			40,080
Hampton river.....	1878	12,000			12,000
	1890			10,000	10,000
Total for Hampton river.....	1878	12,000		10,000	22,000
Mattaponi river.....	1880		2,500		2,500
	1881		3,300		3,300
	1884		2,500		2,500
	1886		5,000		5,000
	1888		3,000		3,000
	1890			3,000	3,000
Total for Mattaponi river.....	1880		16,300	3,000	19,300
Nansemond river.....	1873	37,000			37,000
	1888		10,000		10,000
	1890			10,000	10,000
Total for Nansemond river.....	1873	37,000	10,000	10,000	57,000
Neabasco creek.....	1881		5,000		5,000
Nomoni creek.....	1873	23,500			23,500
	1880		5,000		5,000
	1881		2,000		2,000
	1882		2,000		2,000
	1888		5,000		5,000
	1890			5,000	5,000
Total for Nomoni creek.....	1873	23,500	14,000	5,000	42,500
Norfolk harbor.....	1876	160,000			160,000
	1880		50,000		50,000
	1881		75,000		75,000
	1882		75,000		75,000
	1884		75,000		75,000
	1886		187,500		187,500
	1888		50,000		50,000
	1890			150,000	150,000
Total for Norfolk harbor.....	1876	160,000	512,500	150,000	822,500
Nottoway river.....	1880		5,000		5,000
	1881		2,000		2,000
Total for Nottoway river.....	1880		7,000		7,000
Oocoquan river.....	1873	25,000			25,000
	1890			10,000	10,000
Total for Oocoquan river.....	1873	25,000		10,000	35,000
Onancock harbor.....	1879	3,000			3,000
	1880		5,000		5,000
	1890			6,000	6,000
Total for Onancock harbor.....	1879	3,000	5,000	6,000	14,000
Pagan creek.....	1880		5,000		5,000
	1881		5,000		5,000
Total for Pagan creek.....	1880		10,000		10,000

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
VIRGINIA—Continued.					
Pamunkey river	1880		\$2,500		\$2,500
	1881		2,500		2,500
	1882		2,500		2,500
	1886		5,000		5,000
	1888		3,000		3,000
	1890			\$3,000	3,000
Total for Pamunkey river	1880		15,500	3,000	18,500
Potomac river (Mount Vernon channel).....	1879	\$4,000			4,000
	1880		3,000		3,000
	1881		1,500		1,500
	1888		6,000		6,000
	1890			2,500	2,500
Total for Potomac river.....	1879	4,000	10,500	2,500	17,000
Rappahannock river	1852	93,500			93,500
	1880		25,000		25,000
	1881		15,000		15,000
	1882		17,000		17,000
	1884		20,000		20,000
	1886		20,000		20,000
	1888		15,000		15,000
	1890			15,000	15,000
Total for Rappahannock river	1852	93,500	112,000	15,000	220,500
Staunton river	1879	5,000			5,000
	1880		7,500		7,500
	1881		5,000		5,000
	1882		7,000		7,000
	1884		5,000		5,000
	1886		10,000		10,000
	1888		5,000		5,000
	1890			8,000	8,000
Total for Staunton river	1879	5,000	39,500	8,000	52,500
Totusky river.....	1880		2,500		2,500
	1881		2,500		2,500
	1882		5,000		5,000
Total for Totusky river.....	1880		10,000		10,000
Urbana creek.....	1879	5,000			5,000
	1880		2,500		2,500
	1881		4,000		4,000
	1882		4,000		4,000
	1890			3,000	3,000
Total for Urbana creek.....	1879	5,000	10,500	3,000	18,500
York river	1880		10,000		10,000
	1881		25,000		25,000
	1882		25,000		25,000
	1884		20,000		20,000
	1886		18,750		18,750
	1888		30,000		30,000
	1890			30,000	30,000
Total for York river	1880		128,750	30,000	158,750
NORTH CAROLINA					
	1826	1,919,050	1,910,250	440,000	4,269,300
Beaufort harbor	1836	5,000			5,000
	1881		30,000		30,000
	1882		30,000		30,000
	1884		20,000		20,000
	1886		15,000		15,000
	1888		35,000		35,000
	1890			15,000	15,000
Total for Beaufort harbor	1836	5,000	130,000	15,000	150,000
Cape Fear river above Wilmington	1881		30,000		30,000
	1882		30,000		30,000
	1884		5,000		5,000
	1886		11,250		11,250
	1886		12,000		12,000
	1890			15,000	15,000
Cape Fear river below Wilmington	1829	1,430,729			1,430,729
	1880		70,000		70,000
	1881		140,000		140,000
	1882		225,000		225,000
	1884		200,000		200,000
	1886		157,500		157,500
	1888		245,000		245,000
	1890			170,000	170,000
Northeast branch	1890			5,000	5,000
Total for Cape Fear river	1829	1,430,729	1,125,750	100,000	2,746,479

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
NORTH CAROLINA—Continued.					
Black river.....	1886		\$3,000		\$3,000
Contentnea creek.....	1881		10,000		10,000
	1882		10,000		10,000
	1884		5,000		5,000
	1886		15,000		15,000
	1888		5,000		5,000
	1890			\$7,000	7,000
Total for Contentnea creek.....	1881		45,000	7,000	52,000
Croatan sound.....	1832	\$50,000			50,000
Currituck sound.....	1878	45,000			45,000
	1880		25,000		25,000
	1881		30,000		30,000
	1882		20,000		20,000
	1884		5,000		5,000
	1886		10,000		10,000
	1888		7,500		7,500
	1890			10,000	10,000
Total for Currituck sound.....	1878	45,000	97,500	10,000	152,500
Edenton harbor.....	1878	5,000			5,000
	1884		10,000		10,000
	1886		2,000		2,000
Total for Edenton harbor.....	1878	5,000	12,000		17,000
Fishing creek.....	1890			10,000	10,000
Lillington river.....	1881		3,000		3,000
	1882		3,000		3,000
Total for Lillington river.....	1881		6,000		6,000
Lockwood Folly river.....	1890			5,000	5,000
Lumber river.....	1888		5,000		5,000
	1890			5,000	5,000
Total for Lumber river.....	1888		5,000	5,000	10,000
Mackey creek.....	1890			15,000	15,000
Meherrin river.....	1882		5,000		5,000
Neuse river.....	1878	85,000			85,000
	1880		45,000		45,000
	1881		30,000		30,000
	1882		35,000		35,000
	1884		20,000		20,000
	1886		22,500		22,500
	1888		15,000		15,000
	1890			20,000	20,000
Total for Neuse river.....	1878	85,000	167,500	20,000	272,500
Newbern inlet (Newbern to Beaufort).....	1882		10,000		10,000
	1886		10,000		10,000
	1888		15,000		15,000
Total for Newbern inlet.....	1882		35,000		35,000
New river.....	1836	5,000			5,000
	1882		5,000		5,000
	1884		5,000		5,000
	1886		10,000		10,000
	1888		3,000		3,000
	1890			10,000	10,000
Total for New river.....	1836	5,000	23,000	10,000	38,000
New River channel (Beaufort river to New river).....	1837	45,000			45,000
	1886		10,000		10,000
	1888		5,000		5,000
	1890			15,000	15,000
Total for New River channel.....	1837	45,000	15,000	15,000	75,000
Ocracoke inlet.....	1826	133,750			133,750
	1890			90,000	90,000
Total for Ocracoke inlet.....	1826	133,750		90,000	223,750

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
NORTH CAROLINA—Continued.					
Pamlico and Tar rivers	1836	\$31,000			\$31,000
	1880		\$9,000		9,000
	1881		8,000		8,000
	1882		10,000		10,000
	1884		5,000		5,000
	1886		5,000		5,000
	1888		10,000		10,000
	1890			\$10,000	10,000
Total for Pamlico and Tar rivers	1836	31,000	47,000	10,000	88,000
Pasquotank river	1829	80			80
	1890			3,000	3,000
Total for Pasquotank river	1829	80		3,000	3,080
Perquimans river	1876	2,500			2,500
Roanoke river	1871	45,000			45,000
	1882		5,000		5,000
	1884		3,000		3,000
	1886		20,000		20,000
	1888		40,000		40,000
	1890			25,000	25,000
Total for Roanoke river	1871	45,000	68,000	25,000	138,000
Scuppernong river	1878	4,000			4,000
	1880		1,000		1,000
	1881		1,000		1,000
	1884		2,000		2,000
Total for Scuppernong river	1878	4,000	4,000		8,000
Town creek	1881		1,000		1,000
Trent river	1879	7,000			7,000
	1880		10,000		10,000
	1881		5,000		5,000
	1882		10,000		10,000
	1884		10,000		10,000
	1886		3,500		3,500
	1888		5,000		5,000
	1890			5,000	5,000
Total for Trent river	1879	7,000	43,500	5,000	55,500
Washington harbor	1852	5,000			5,000
Yadkin river	1879	20,000			20,000
	1880		20,000		20,000
	1881		12,000		12,000
	1882		25,000		25,000
	1886		10,000		10,000
	1888		10,000		10,000
	1890			5,000	5,000
Total for Yadkin river	1879	20,000	77,000	5,000	102,000
SOUTH CAROLINA					
Ashepoo river	1836	550,000	1,895,000	583,000	3,028,000
Ashley river	1872	1,300			1,300
	1880		1,000		1,000
	1881		1,500		1,500
	1884		2,000		2,000
	1886		1,000		1,000
Total for Ashley river	1880		5,500		5,500
Beaufort river	1890			12,500	12,500
Clark creek	1888		2,500		2,500
	1890			2,500	2,500
Total for Clark creek	1888		2,500	2,500	5,000
Charleston harbor	1852	544,700			544,700
	1880		175,000		175,000
	1881		175,000		175,000
	1882		300,000		300,000
	1884		250,000		250,000
	1886		187,500		187,500
	1888		350,000		350,000
	1890			370,000	370,000
Total for Charleston harbor	1852	544,700	1,437,500	370,000	2,352,200

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
SOUTH CAROLINA—Continued.					
Congaree river.....	1886		\$7,500		\$7,500
	1888		7,500		7,500
	1890			\$5,000	5,000
Total for Congaree river.....	1886		15,000	5,000	20,000
Edisto river.....	1882		8,000		8,000
	1884		5,000		5,000
	1886		3,000		3,000
	1888		5,000		5,000
	1890			5,000	5,000
Total for Edisto river.....	1882		21,000	5,000	26,000
Georgetown harbor.....	1836	\$4,000			4,000
	1882		7,000		7,000
	1884		5,000		5,000
	1886		5,000		5,000
	1888		7,500		7,500
	1890			8,000	8,000
Total for Georgetown harbor.....	1836	4,000	24,500	8,000	36,500
Great Pedee river.....	1880		7,000		7,000
	1881		6,000		6,000
	1882		6,000		6,000
	1884		8,000		8,000
	1886		20,000		20,000
	1888		20,000		20,000
	1890			12,500	12,500
Total for Great Pedee river.....	1880		67,000	12,500	79,500
Little Pedee river.....	1888		5,000		5,000
	1890			5,000	5,000
Total for Little Pedee river.....	1888		5,000	5,000	10,000
Mingo creek.....	1888		5,000		5,000
	1890			5,000	5,000
Total for Mingo creek.....	1888		5,000	5,000	10,000
Salkehatchie river.....	1882		5,000		5,000
	1884		3,000		3,000
	1886		2,000		2,000
	1888		3,000		3,000
	1890			5,000	5,000
Total for Salkehatchie river.....	1882		13,000	5,000	18,000
Santee river.....	1881		22,000		22,000
	1882		20,000		20,000
	1884		15,000		15,000
	1886		18,750		18,750
	1888		24,000		24,000
	1890			30,000	30,000
Total for Santee river.....	1881		99,750	30,000	129,750
Wappoo cut.....	1881		10,000		10,000
	1882		10,000		10,000
	1884		3,000		3,000
	1886		5,000		5,000
	1888		5,000		5,000
	1890			10,000	10,000
Total for Wappoo cut.....	1881		33,000	10,000	43,000
Wateree river.....	1881		8,000		8,000
	1882		15,000		15,000
	1884		5,000		5,000
	1886		7,500		7,500
	1888		12,000		12,000
	1890			12,500	12,500
Total for Wateree river.....	1881		47,500	12,500	60,000
Winyah bay.....	1886		18,750		18,750
	1888		100,000		100,000
	1890			100,000	100,000
Total for Winyah bay.....	1886		118,750	100,000	218,750

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and includ- ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropria- tions to date.
GEORGIA (on the Atlantic)	1826	\$1,120,507	\$1,285,609	\$512,500	\$2,918,706
Altamaha river	1881		5,000		5,000
	1882		15,000		15,000
	1884		15,000		15,000
	1886		20,000		20,000
	1888		10,000		10,000
	1890			15,000	15,000
Total for Altamaha river	1881		65,000	15,000	80,000
Brunswick harbor	1836	30,000			30,000
	1880		10,000		10,000
	1881		5,000		5,000
	1882		25,000		25,000
	1884		10,000		10,000
	1886		22,500		22,500
	1888		35,000		35,000
	1890			35,000	35,000
Total for Brunswick harbor	1836	30,000	107,500	35,000	172,500
Darien harbor	1878	8,000			8,000
	1890			25,000	25,000
Total for Darien harbor	1878	8,000		25,000	33,000
Jekyl creek	1888		5,000		5,000
	1890			7,500	7,500
Total for Jekyl creek	1888		5,000	7,500	12,500
Ocmulgee river	1876	37,000			37,000
	1880		7,000		7,000
	1881		5,000		5,000
	1882		5,000		5,000
	1884		3,000		3,000
	1886		7,500		7,500
	1888		15,000		15,000
	1890			30,000	30,000
Total for Ocmulgee river	1876	37,000	42,500	30,000	109,500
Oconee river	1878	11,500			11,500
	1880		1,500		1,500
	1881		2,500		2,500
	1882		5,000		5,000
	1884		3,000		3,000
	1886		9,000		9,000
	1888		12,500		12,500
	1890			25,000	25,000
Total for Oconee river	1878	11,500	33,500	25,000	70,000
Romerly marsh	1882		10,000		10,000
	1884		10,000		10,000
	1886		17,475		17,475
	1888		4,634		4,634
Total for Romerly marsh	1882		42,109		42,109
St. Augustine creek	1879	5,000			5,000
Savannah harbor	1872	452,000			452,000
	1880		65,000		65,000
	1881		65,000		65,000
	1890			350,000	350,000
Total for Savannah harbor	1872	452,000	130,000	350,000	932,000
Savannah river	1826	577,097			577,097
	1880		16,000		16,000
	1881		38,000		38,000
	1882		225,000		225,000
	1884		215,000		215,000
	1886		165,000		165,000
	1888		201,000		201,000
	1890			25,000	25,000
Total for Savannah river	1826	577,097	860,000	25,000	1,462,097

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

ATLANTIC COAST—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
FLORIDA (on the Atlantic)	1829	\$146,570	\$982,000	\$240,500	\$1,369,070
Chipola river.....	1835	9,000			9,000
Indian river.....	1844	6,500			6,500
Key West harbor	1882		25,000		25,000
	1886		2,500		2,500
	1888		25,000		25,000
	1890			40,000	40,000
Total for Key West harbor.....	1882		52,500	40,000	92,500
Ocklawaha river	1835	10,000			10,000
	1890			10,000	10,000
Total for Ocklawaha river	1835	10,000		10,000	20,000
St. Augustine harbor.....	1829	33,570			33,570
	1888		35,000		35,000
	1890			20,000	20,000
Total for St. Augustine harbor.....	1829	33,570	35,000	20,000	88,570
St. John river.....	1852	87,000			87,000
	1890		139,000		139,000
	1881		100,000		100,000
	1882		150,000		150,000
	1884		155,000		155,000
	1886		150,000		150,000
	1888		175,000		175,000
	1890			170,000	170,000
St. John river (Volusia bar)	1880		5,000		5,000
	1881		5,500		5,500
	1882		5,000		5,000
	1884		2,000		2,000
	1886		7,500		7,500
	1888		500		500
	1890			500	500
Total for St. John river	1852	87,000	894,500	170,500	1,152,000
Yellow river.....	1839	500			500

GULF OF MEXICO.

FLORIDA (on the Gulf of Mexico).....	1828	230,280	579,500	135,500	945,280
Apalachicola bay and river.....	1828	75,250			75,250
	1880		12,000		12,000
	1881		11,500		11,500
	1882		27,000		27,000
	1884		11,000		11,000
	1886		13,000		13,000
	1888		22,000		22,000
	1890			22,000	22,000
Total for Apalachicola bay and river.....	1828	75,250	96,500	22,000	193,750
Caloosahatchee river	1882		5,000		5,000
	1884		5,000		5,000
	1886		4,000		4,000
	1888		10,000		10,000
	1890			3,600	3,600
Total for Caloosahatchee river	1882		24,000	3,600	27,600
Cedar Keys harbor.....	1872	67,500			67,500
	1880		15,000		15,000
	1884		5,000		5,000
	1886		7,000		7,000
	1888		7,500		7,500
	1890			2,500	2,500
Total for Cedar Keys harbor.....	1872	67,500	34,500	2,500	104,500
Lagrange bayou	1882		2,000		2,000
	1886		2,000		2,000
	1888		3,000		3,000
	1890			3,000	3,000
Total for Lagrange bayou	1882		7,000	3,000	10,000

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
FLORIDA (on the Gulf of Mexico)—Continued.					
Manatee river.....	1882		\$12,000		\$12,000
	1880		11,000		11,000
	1888		5,000		5,000
	1890			\$6,000	6,000
Total for Manatee river.....	1882		28,000	6,000	34,000
Ochlochney river.....	1833	\$5,000			5,000
Pease river.....	1881		7,000		7,000
	1882		4,000		4,000
	1886		7,000		7,000
	1890			35,000	35,000
Total for Pease river.....	1881		18,000	35,000	53,000
Pensacola harbor.....	1878	30,000			30,000
	1880		40,000		40,000
	1881		20,000		20,000
	1882		50,000		50,000
	1884		55,000		55,000
	1886		20,000		20,000
	1888		35,000		35,000
	1890			25,000	25,000
Total Pensacola harbor.....	1878	30,000	220,000	25,000	275,000
St. Mark river.....	1828	37,530			37,530
Sarasota bay.....	1890			5,000	5,000
Suwanee river.....	1839	15,000			15,000
	1880		5,000		5,000
	1881		3,000		3,000
	1882		5,000		5,000
	1884		5,000		5,000
	1886		5,000		5,000
	1888		15,000		15,000
	1890			3,000	3,000
Total for Suwanee river.....	1839	15,000	38,000	3,000	56,000
Tampa bay.....	1880		10,000		10,000
	1881		10,000		10,000
	1882		20,000		20,000
	1884		20,000		20,000
	1886		10,000		10,000
	1888		25,000		25,000
	1890			25,000	25,000
Total for Tampa bay.....	1880		95,000	25,000	120,000
Withlacoochee river.....	1881		7,500		7,500
	1884		3,000		3,000
	1886		3,000		3,000
	1888		5,000		5,000
	1890			5,400	5,400
Total for Withlacoochee river.....	1881		18,500	5,400	23,900
GEORGIA (a).....					
	1874	23,300	4,000		27,300
Etowah river.....	1876	1,300			1,300
Oostanaula and Coosawatee rivers.....	1874	22,000			22,000
	1880		2,000		2,000
	1881		1,000		1,000
	1882		1,000		1,000
Total for Oostanaula and Coosawatee rivers.....	1874	22,000	4,000		26,000
ALABAMA.....					
	1826	821,752	1,301,750	524,000	2,647,502
Alabama river.....	1878	55,000			55,000
	1880		25,000		25,000
	1881		20,000		20,000
	1882		20,000		20,000
	1884		10,000		10,000
	1886		15,000		15,000
	1888		20,000		20,000
	1890			20,000	20,000
Total for Alabama river.....	1878	55,000	110,000	20,000	185,000

a Rivers emptying into other rivers which flow into the Gulf of Mexico.

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
ALABAMA—Continued.					
Black Warrior river.....	1884		\$50,000		\$50,000
	1886		56,250		56,250
	1888		118,000		118,000
	1890			\$150,000	150,000
Total for Black Warrior river.....	1884		224,250	150,000	374,250
Cahawba river.....	1882		20,000		20,000
	1884		10,000		10,000
	1886		7,500		7,500
Total for Cahawba river.....	1882		37,500		37,500
Mobile harbor and Pass au Heron.....	1826	\$766,752			766,752
	1880		125,000		125,000
	1881		100,000		100,000
	1882		125,000		125,000
	1884		200,000		200,000
	1886		90,000		90,000
	1888		250,000		250,000
	1890			350,000	350,000
Total for Mobile harbor and Pass au Heron.....	1826	766,752	890,000	350,000	2,006,752
Tallahpoosa river.....	1882		15,000		15,000
	1884		10,000		10,000
	1886		7,500		7,500
	1888		7,500		7,500
	1890			4,000	4,000
Total for Tallapoosa river.....	1882		40,000	4,000	44,000
MISSISSIPPI.....	1827	76,400	311,125	60,000	447,525
Biloxi harbor.....	1882		5,000		5,000
	1886		12,500		12,500
	1888		18,500		18,500
	1890			9,000	9,000
Total for Biloxi harbor.....	1882		36,000	9,000	45,000
Noxubee river.....	1880		12,000		12,000
	1881		8,000		8,000
	1882		10,000		10,000
	1884		7,500		7,500
	1886		7,500		7,500
	1888		5,000		5,000
	1890			3,000	3,000
Total for Noxubee river.....	1880		50,000	3,000	53,000
Old Town creek.....	1882		3,000		3,000
Pascagoula river.....	1827	70,400			70,400
	1880		20,000		20,000
	1881		4,000		4,000
	1882		8,000		8,000
	1884		3,000		3,000
	1886		25,000		25,000
	1888		27,000		27,000
	1890			20,000	20,000
Total for Pascagoula river.....	1827	70,400	87,000	20,000	177,400
Pearl river.....	1879	6,000			6,000
	1880		37,500		37,500
	1881		27,500		27,500
	1882		17,500		17,500
	1884		12,500		12,500
	1886		17,625		17,625
	1888		22,500		22,500
	1890			28,000	28,000
Total for Pearl river.....	1879	6,000	135,125	28,000	169,125
LOUISIANA.....	1836	7,767,489	591,647	220,000	8,579,136
Atchafalaya river.....	1880		8,000		8,000
	1881		5,000		5,000
	1886		2,000		2,000
	1888		5,000		5,000
	1890			38,000	38,000
Total for Atchafalaya river.....	1880		20,000	38,000	58,000

ATLANTIC COAST AND GULF OF MEXICO.

139

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
LOUISIANA—Continued.					
Bogue Chitto river.....	1890			\$5,000	\$5,000
Calcasieu river and pass.....	1872	\$15,000			15,000
	1881		\$15,000		15,000
	1882		10,000		10,000
	1884		6,500		6,500
	1886		16,255		16,255
	1888		10,000		10,000
	1890			75,000	75,000
Total for Calcasieu river and pass.....	1872	15,000	57,755	75,000	147,755
Lake Ponchartrain harbor.....	1852	25,000			25,000
Plaquemines bayou.....	1888		100,000		100,000
	1890			100,000	100,000
Total for Plaquemines bayou.....	1888		100,000	100,000	200,000
Tangipahoa river.....	1872	2,500			2,500
	1880		5,000		5,000
	1881		2,000		2,000
	1884		2,000		2,000
Total for Tangipahoa river.....	1872	2,500	9,000		11,500
Tchefuncta and Bogue Falg rivers.....	1872	6,000			6,000
	1881		1,500		1,500
	1882		1,500		1,500
	1886		2,500		2,500
	1890			1,000	1,000
Total for Tchefuncta and Bogue Falg rivers.....	1872	6,000	5,500	1,000	12,500
Tickfaw river.....	1881		2,000		2,000
	1882		2,000		2,000
	1886		2,000		2,000
	1888		1,000		1,000
	1890			1,000	1,000
Total for Tickfaw river.....	1881		7,000	1,000	8,000
Vermilion river.....	1880		5,000		5,000
	1881		4,900		4,900
Total for Vermilion river.....	1880		9,900		9,900
Delta and passes of the Mississippi river:					
Channel and general improvements.....	1836	2,214,989			2,214,989
Surveys.....	1850	334,000	382,492		730,492
Jetties.....	1875	5,150,000			5,150,000
Total for delta and passes of the Mississippi river.....	1836	7,718,989	382,492		8,101,481
TEXAS.					
Aransas pass and bay.....	1852	1,247,200	4,342,500	893,150	6,482,850
	1879	35,000			35,000
	1880		65,000		65,000
	1881		80,000		80,000
	1882		100,000		100,000
	1884		100,000		100,000
	1886		101,250		101,250
	1888		100,000		100,000
Total for Aransas pass and bay.....	1879	35,000	546,250		581,250
Brazos river.....	1880		40,000		40,000
	1881		40,000		40,000
	1882		50,000		50,000
	1884		10,000		10,000
	1886		18,750		18,750
Total for Brazos river.....	1880		158,750		158,750
Brazos Santiago harbor.....	1878	6,000			6,000
	1880		25,000		25,000
	1881		75,000		75,000
	1882		60,000		60,000
	1884		25,000		25,000
	1886		37,500		37,500
	1888		25,000		25,000
Total for Brazos Santiago harbor.....	1878	6,000	247,500		253,500

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GULF OF MEXICO—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
TEXAS—Continued.					
Buffalo bayou	1881		\$25,000		\$25,000
	1882		50,000		50,000
	1884		25,000		25,000
	1886		18,750		18,750
	1888		25,000		25,000
	1890			\$25,000	25,000
Total for Buffalo bayou	1881		143,750	25,000	168,750
Cedar bayou	1890			18,150	18,150
Colorado river of Texas	1852	\$20,000			20,000
Galveston bay	1872	282,200			282,200
	1880		50,000		50,000
	1881		50,000		50,000
	1882		94,500		94,500
	1884		100,000		100,000
	1890			40,000	40,000
Total for Galveston bay	1872	282,200	294,500	40,000	616,700
Galveston harbor	1870	653,000			653,000
	1880		175,000		175,000
	1881		250,000		250,000
	1882		400,000		400,000
	1886		300,000		300,000
	1888		503,000		500,000
	1890			500,000	500,000
Total for Galveston harbor	1870	653,000	1,625,000	500,000	2,778,000
Matagorda bay (Indianola harbor)	1876	70,000			70,000
	1880		50,000		50,000
	1881		60,000		60,000
	1882		60,000		60,000
	1884		50,000		50,000
	1886		37,500		37,500
Total for Matagorda bay	1876	70,000	257,500		327,500
Rio Grande river	1876	17,000			17,000
Sabine and Neches rivers	1878	29,000			29,000
	1880		10,000		10,000
	1881		10,000		10,000
	1882		9,000		9,000
	1884		7,000		7,000
Total for Sabine and Neches rivers	1878	29,000	36,000		65,000
Sabine pass and bay	1875	113,000			113,000
	1880		50,000		50,000
	1881		150,000		150,000
	1882		150,000		150,000
	1884		200,000		200,000
	1886		198,750		198,750
	1888		250,000		250,000
	1890			300,000	300,000
Total for Sabine pass and bay	1875	113,000	998,750	300,000	1,411,750
San Antonio river	1852	1,500			1,500
Survey of rivers and harbors	1852	5,000			5,000
Trinity river	1852	15,500			15,500
	1880		4,000		4,000
	1881		10,000		10,000
	1882		8,000		8,000
	1888		12,500		12,500
	1890			10,000	10,000
Total for Trinity river	1852	15,500	34,500	10,000	60,000

ATLANTIC COAST AND GULF OF MEXICO.

141

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

MISCELLANEOUS.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
Total	1828	\$1,321,500	\$3,772,350	\$998,600	\$6,092,450
Arthur Kill (New York and New Jersey)	1888 1890		10,000	7,000	10,000 7,000
Total for Arthur Kill	1888		10,000	7,000	17,000
Chattahoochee river (Alabama, Florida, and Georgia)	1835 1880 1881 1882 1884 1886 1888 1890	35,000	20,000 20,000 25,000 35,000 20,000 20,000		35,000 20,000 20,000 25,000 35,000 20,000 20,000
Total for Chattahoochee river	1835	35,000	140,000	20,000	195,000
Chattahoochee and Flint rivers (Georgia)	1874	70,000			70,000
Chincoteague bay inland waterway (Delaware and Virginia)	1886 1888 1890		18,750 50,000		18,750 50,000
Total for Chincoteague bay inland waterway	1886		68,750	50,000	118,750
Choctawhatchee river (Alabama and Florida)	1833 1880 1881 1882 1884 1886 1888 1890	35,000	7,000 10,000 20,000 15,000 15,000 10,000		35,000 7,000 10,000 20,000 15,000 15,000 10,000
Total for Choctawhatchee river	1833	35,000	77,000	12,500	124,500
Coosa river (Alabama and Georgia)	1876 1880 1881 1882 1884 1886 1888 1890	150,000	75,000 60,000 83,700 50,000 45,000 60,000		150,000 75,000 60,000 83,700 50,000 45,000 60,000
Total for Coosa river	1876	150,000	373,700	150,000	673,700
Cumberland sound (Georgia and Florida)	1880 1881 1882 1884 1886 1888 1890		30,000 100,000 50,000 75,000 112,500 112,500		30,000 100,000 50,000 75,000 112,500 112,500
Total for Cumberland sound	1880		480,000	112,500	592,500
Dan river (Virginia and North Carolina)	1880 1881 1882 1884 1886		10,000 8,000 7,500 5,000 20,000		10,000 8,000 7,500 5,000 20,000
Total for Dan river	1880		50,500		50,500
Delaware river (Delaware, New Jersey, New York, and Pennsylvania)	1836 1880 1881 1882 1884 1886 1888 1890	581,000	235,000 250,000 286,000 200,000 210,000 250,000		581,000 235,000 250,000 286,000 200,000 210,000 250,000
Total for Delaware river	1836	581,000	1,431,000	250,000	2,262,000
Entrance to Dismal Swamp canal (North Carolina and Virginia)	1836	35,000			35,000
Escambia and Conecuh rivers (Alabama and Florida)	1833 1880 1881 1882 1884 1886 1888 1890	10,500	8,000 5,000 12,000 15,000 12,000 10,000		10,500 8,000 5,000 12,000 15,000 12,000 10,000
Total for Escambia and Conecuh rivers	1833	10,500	62,000	7,500	80,000

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

MISCELLANEOUS—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 19, 1890.	Total appropriations to date.
Flint river (Georgia).....	1878	\$17,000			\$17,000
	1880		\$20,000		20,000
	1881		15,000		15,000
	1882		25,000		25,000
	1884		20,000		20,000
	1886		20,000		20,000
	1888		20,000		20,000
	1890			\$20,000	20,000
Total for Flint river	1878	17,000	120,000	20,000	157,000
Little Narragansett bay (Rhode Island and Connecticut).....	1876	20,000			20,000
	1880		5,000		5,000
	1881		5,000		5,000
	1882		5,000		6,000
Total for Little Narragansett bay	1876	20,000	16,000		36,000
Nanticoke river (Delaware and Maryland).....	1886		10,000		10,000
Norfolk to Atlantic ocean (Virginia and North Carolina).....	1878	20,000			20,000
North Landing river (Virginia and North Carolina).....	1879	25,000			25,000
	1880		15,000		15,000
	1881		7,500		7,500
	1882		8,000		8,000
Total for North Landing river	1879	25,000	30,500		55,500
Pawcatuck river (Rhode Island and Connecticut).....	1871	50,000			50,000
	1886		12,000		12,000
	1888		10,000		10,000
	1890			16,600	16,600
Total for Pawcatuck river	1871	50,000	22,000	16,600	88,600
Philadelphia harbor (Pennsylvania and New Jersey).....	1888		505,000		505,000
	1890			200,000	200,000
Total for Philadelphia harbor.....	1888		505,000	200,000	705,000
Shenandoah river (West Virginia).....	1880		15,000		15,000
	1881		2,500		2,500
Total for Shenandoah river	1880		17,500		17,500
Staten Island channel (New York and New Jersey).....	1874	75,000			75,000
	1880		29,000		29,000
	1882		40,000		40,000
	1884		10,000		10,000
	1886		15,000		15,000
	1888		15,000		15,000
	1890			15,000	15,000
Total for Staten Island channel	1874	75,000	109,000	15,000	199,000
St. John and St. Mary inland passage (Georgia and Florida).....	1828	78,000			78,000
Waccamaw river (North Carolina and South Carolina).....	1880		15,000		15,000
	1881		10,000		10,000
	1882		4,400		4,400
	1884		6,000		6,000
	1886		15,000		15,000
	1890			12,500	12,500
Total for Waccamaw river	1880		50,400	12,500	62,900
Warrior and Tombigbee rivers (Alabama and Mississippi).....	1872	120,000			120,000
	1880		51,000		51,000
	1881		26,000		26,000
	1882		31,000		31,000
	1884		37,000		37,000
	1886		37,500		37,500
	1888		16,500		16,500
	1890			125,000	125,000
Total for Warrior and Tombigbee rivers.....	1872	120,000	199,000	125,000	444,000

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 39.—APPROPRIATIONS FOR ATLANTIC COAST AND GULF OF MEXICO—Continued.

GENERAL APPROPRIATIONS.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations September 18, 1890.	Total appropriations to date.
Total	1841	\$4,832,127	\$258,575		\$5,090,702
For the preservation and repair of harbor and river improvements, not mentioned in foregoing statements.	1841	85,000			85,000
For repairs and contingencies	1852	110,000			110,000
For transportation, fuel, etc	1852	12,127			12,127
For surveys	1866	60,000			60,000
For the repair, extension, and completion of public works on rivers and harbors, not mentioned in foregoing statements.	1868	3,500,000			3,500,000
For examination and surveys for which there is no special appropriation.	1870	1,065,000			1,065,000
	1880		150,000		150,000
	1881		50,000		50,000
Total	1870	1,065,000	200,000		1,265,000
For removal of sunken vessels	1880		8,575		8,575
For the purchase of Shreve's patent	1881		50,000		50,000

TRANSPORTATION ON THE PACIFIC COAST.

(EXCLUSIVE OF ALASKA.)

TRANSPORTATION ON THE PACIFIC COAST.

(EXCLUSIVE OF ALASKA.)

BY THOMAS J. VIVIAN.

The statistics of transportation which are presented in the accompanying report are for the seaports and inland waterways of the states of Washington, Oregon, and California. From the official description of the Pacific coast furnished by the United States Coast and Geodetic Survey, it may be briefly stated that from the southern boundary of California, in latitude $32^{\circ} 32'$, longitude $117^{\circ} 08'$, to Point Arguello, in latitude $34^{\circ} 34'$, longitude $120^{\circ} 38'$, the coast runs west-northwest 225 miles, off which stretch lie the Santa Barbara islands; that from Point Arguello to Cape Mendocino, in latitude $40^{\circ} 25'$, longitude $124^{\circ} 22'$, it runs northwest 525 miles, embracing the Bay of Monterey and the gulf of the Farallones with the entrance to San Francisco bay; and that from Cape Mendocino to Cape Flattery, in latitude $48^{\circ} 23'$, longitude $124^{\circ} 44'$, it runs north-northwest 480 miles, embracing Humboldt bay, the great reefs of Point St. George and Cape Orford, the entrance to the Columbia river, and the Strait of Juan de Fuca.

COMMERCIAL FACILITIES.

According to the same authority the Pacific coast shore lines are as follows:

	STATUTE MILES.
Length of coast of California, including the Santa Barbara islands, and not including the bays and rivers.....	1,280
Oregon	382
Washington, including the islands of Washington sound, Admiralty inlet, and Puget sound	2,028
Total shore line.....	3,690

The advantages thus given and the facilities afforded for the prosecution of maritime commerce by such a vast coast line with the numerous harbors, inlets, and rivers that penetrate far into the interior, have not yet been fully appreciated or comprehended, although with each succeeding year the true magnitude of their possibilities is becoming understood.

COAST OF CALIFORNIA.

The coast of California lies between $32^{\circ} 32'$ and 42° north latitude. Measured from point to point its length is 850 statute miles. Its trend is from southeast to northwest, the most southerly point being also the most easterly. The most westerly point is not, however, the highest in latitude, Cape Mendocino, 100 miles south of the northern boundary, being farthest to the west. Up to this point from the Mexican boundary the trend of the coast is irregularly to the westward.

The gulf of the Farallones (in the bight of which is the entrance to San Francisco harbor), the Bay of Monterey, and a marked deviation to the east at Point Conception, are the prominent exceptions to the general northwesterly trend of the coast, and are the only instances of breaks of the continuity in large forms. The eastward recession of the coast at Point Conception partially protects the shore to the southward from northwesterly winds, and thereby serves to impart a noticeable softening to the coast climate of southern California. This protection makes landings on the open coast practicable to a much greater extent to the south of Point Conception than is possible to the north of it.

The shore line of California is generally bold and bluff to the sea, and is often mountainous and forbidding as viewed from the ocean. There are, however, a number of low plains or sand beaches interspersed between rocky points, but almost throughout its length it is bounded on the east side by ranges of mountains, which either come directly to the ocean or in other places recede a few miles from the shore line, being conspicuously visible in clear weather many miles at sea. The topography of the coast belt in general makes communication by land difficult, and in long stretches of coast the only outlet for productions or facility for trade is afforded by the sea.

The streams which discharge into the ocean are for the most part short and steep in descent. At their mouths shallow bars are found. The tide gives them whatever value they possess for purposes of navigation. This value

is not great; the depth of the few whose mouths admit vessels does not exceed 8 to 12 feet at high tide in channels that are frequently changed in position by gales of wind. The Salinas, Eel, and Klamath rivers are the largest examples.

A noticeable characteristic of the coast is the occurrence of esteros or lagoons, in which the tides rise and fall. In some instances they give admittance at high water to vessels drawing 8 to 10 feet. Wilmington harbor has been improved by the federal government so that vessels drawing 16 feet now enter. No improvement has been attempted at any of the other esteros, such as Newport, Morro, Drakes, and Bodega, but they are not of great value to commerce.

As for harbors, there are but two suitable for the largest vessels, San Francisco, admirable in every respect, and San Diego, smaller, but good. They are 500 miles apart. North of San Francisco there is no deep water harbor. Humboldt harbor to the north and Wilmington to the south are the only remaining instances of harbors which admit vessels with drafts of more than 8 to 10 feet. The limit of draft of vessels for these harbors is about 16 feet.

SAN FRANCISCO BAY AND ITS RIVERS.

What is popularly known as San Francisco bay is really a series of bays, as the different parts bear different names. San Francisco bay is 40 miles in length, extending 30 miles south of the city and 10 miles north of it. Adjoining it on the north, with an eastward trend, is San Pablo bay, about 12 miles in length, connected with Suisun bay lying to the eastward by the Strait of Karquinez, which is about 6 miles in length, the total mid-tide area of all these bays being 450 square miles.

The channels of the bay, while not free from rocks, are free from danger, and, indeed, San Francisco harbor, by reason of its unusual depth of entrance, freedom from hidden dangers, conspicuous landmarks, and its internal commodiousness and capacity, is well endowed.

The two rivers which drain the central valley of California, the Sacramento and San Joaquin, discharge together at the eastern end of Suisun bay, and, together with the bays already mentioned, afford continuous navigation to the considerable towns of Sacramento and Stockton, and to a large district of agricultural country lying above these points. The navigable portion of the Sacramento river is about 230 miles in length. The lower stretch, extending from Sacramento to the mouth, 60 miles in length, is affected by the tide for the greater part of its length, and is navigable for the largest class of river boats. The next division carries 4 feet of water in the lowest stage of the river to Colusa, 106 miles distant from Sacramento. Above Colusa the fall of the river increases rapidly. It is navigable for boats and barges drawing about 3 feet to Mackintosh landing, 68 miles farther up the Feather, which enters the Sacramento 20 miles above the city of the same name, and is navigable to the town of Marysville, 30 miles from its mouth. The San Joaquin river is navigable for large steamboats from its mouth to Stockton slough, a distance of 38 miles. During the winter and spring, navigation is practicable for light drafts to Hills Ferry, 90 miles farther up stream.

The Mokelumne river, Old river, and other tidal channels subsidiary to the San Joaquin afford steam navigation to more or less extent.

A number of tidal channels, locally known as creeks, make up from the bays, sometimes for a considerable distance, and afford navigation for light-draft boats and cheap communication with San Francisco. The largest of these are Napa, Petaluma, and Suisun creeks, the respective heads of navigation being thriving towns bearing the same names, while the whole 32 tidal channels contribute no less than 194 miles to the navigable waters of the bay.

ROADSTEADS AND LANDINGS.

The lack of convenient harbors and the difficult topography of the coast would seem to be insuperable obstacles, forbidding commerce, and consigning the coast lands to isolation. Yet a large aggregate of commerce is carried on by small vessels, which find shelter and opportunity in roadsteads, large and small, convenient or otherwise, which are distributed over almost the whole length of the coast.

The coast line, although little broken in large forms or provided with inlets admitting vessels, is irregular in a small way, being frequently varied by jutting rocky points, which afford a lee to the southward and shelter from the prevailing winds from the northwest which blow parallel to the coast line. The bights thus formed are entirely uncovered on one side, namely, to the south. Monterey roadstead is the only exception, it being open to the north and covered from the south. All others are sheltered on the north side and open in the south. In southerly weather vessels lying in these roadsteads are in danger of being driven ashore by wind or by the onset of a heavy sea.

The period of northerly or northwesterly winds covers most of the year. During winter months southerly winds occur at intervals, but not continuously. They are less frequent and less violent south of Point Conception than on the northern half of the coast, where they are liable to occur in severe storms, accompanied by heavy seas from the southwest. They are not, however, of long duration.

The coast is a lee shore in southwesterly gales, and sailing vessels finding themselves near the coast under these conditions are fortunate if they escape destruction. The prevailing northwesterly winds, however, do not expose vessels to the dangers of a lee shore, as they occur but as moderate gales. There is almost always a heavy surf, even in calm weather, which makes it dangerous to land in boats at unsheltered points.

The principal roadsteads in order of latitude south to north are San Pedro, San Luis Obispo, or Port Harford, Monterey, and Santa Cruz, situated south of San Francisco, and Drakes bay, Trinidad, and Crescent city, to the north of San Francisco.

In addition there are a great number of small roadsteads, including bays with shallow bars, river entrances, places with shelter for a very few vessels, and landings upon the open coast, where small vessels, steam or sail, receive or discharge cargo. No square rigged vessels or large steamers visit these points.

Most of these landings are contracted. They are usually provided with substantial moorings. Where trade warrants and where the position is not too exposed a wharf is built. In other cases, where the shore is high, cargo is put aboard by a chute or by means of a wire cable made fast to the mast of a vessel lying at anchor.

The distribution of these landings on different parts of the coast is quite unequal. Between the parallels 38° and 40° they are thickly grouped, there being nearly 40 in this interval. This is a region of some agricultural production, but the main trade is in the various forms of redwood lumber, railroad ties, and posts.

The mountainous character of Cape Mendocino and the absence of productions serve to reduce the number of landings between parallels 40° and 42° to six, in which, however, are included several points of importance.

Between San Pedro and San Diego there are but few landings, and they are sparsely distributed between Point Conception and Monterey.

Dense fogs prevail along the coast during the late summer and early autumn. They are a source of real danger, which is being reduced as the number of steam fog signals on shore is increased. These, with automatic whistling buoys, are now placed off the entrances of the most important ports.

COAST OF OREGON.

The coast line of Oregon is very similar to that of California, the cliffs for long stretches being almost vertical and covered with a dense growth of timber and underbrush, varied with sand dunes, a few bights, and an occasional estuary and lagoon. The harbors formed by the mouths of rivers are more numerous than any other class of landings for commercial purposes, the principal being the mouth of the Rogue river, which is quite extensive; the mouth of the Coquille, between which and San Francisco there plies a large fleet of lumber schooners; the mouth of the Umpqua, forming one of the best ports of the northwestern coast; the mouth of the Siuslaw, often called Siuslaw bay; Siletz river bay, and Nehalem bay, which is really the tidal mouth of the river of the same name.

Coos bay is quite an extensive lagoon, sheltered by Cape Arago, and contains the two important towns of Empire city and Marshfield, from which places steamship lines ply regularly to San Francisco and Portland. Yakima bay and Tillamook harbor are good roadsteads, ocean steamers of from 12 to 14 feet draft running regularly between these places and San Francisco, 450 miles to the south. Alsea bay and Chetco bay afford good landings, while Astoria is situated on an extensive estuary, into which Youngs and Klaskuine rivers empty their waters. Just above the entrance to the Rogue river, 350 miles north of San Francisco and lying under the shelter of Cape Blanco, the most westerly point of the Pacific coast states, is Port Orford, selected by United States engineers as the harbor of refuge for Oregon.

The most remarkable waterways of Oregon are the Columbia and Willamette rivers. The Columbia belongs both to Washington and Oregon. The Willamette flows northward about midway between the coast range and the Cascade mountains and empties into the Columbia river at a point about 100 miles from the ocean, receiving in its course the five important westward flowing streams: the Clackamas, Moalla, Pudding, Santiam, and McKenzie, while flowing east into it are the Tutatulin, Chehalem, Yam Hill, La Crole, Luckiamute, Marys, Long Tom, and Callaposhia, all of these being streams of importance and many of them navigable. The Willamette is navigable for steamers and river craft 125 miles from its mouth.

The city of Portland is situated on the Willamette, about 12 miles from its confluence with the Columbia and 110 miles by river from the ocean. It is at the head of ocean navigation for nearly the whole area drained by the Columbia river, and is remarkable as being the first place north of San Francisco, from which it is distant 709 miles, which will admit seagoing vessels of all classes. Its trade not only includes the comparatively local traffic of northern California, western Montana, and British Columbia, but also a large and increasing foreign commerce in wheat to England and the continent, in flour to Japan, and in lumber to England, China, and South America.

THE COLUMBIA RIVER.

This great river of the northwest forms the boundary line between the states of Oregon and Washington for 320 miles. Its principal tributary, the Snake river, flows through the latter state as a navigable river for 168

miles. The Columbia is navigable for steamboats of considerable draft for a distance of more than 1,000 miles from its mouth. For the first 100 miles it is five miles in width and has a depth sufficient to carry ocean vessels.

COAST OF WASHINGTON.

The coast of Washington, from the mouth of the Columbia to Cape Flattery, is even less broken than that of Oregon, the only indentations of any commercial consequence being Shoalwater bay and Grays harbor. Shoalwater bay is a long, narrow arm of the sea, lying parallel and close to the coast, and having many of the characteristics of the more southerly lagoons. The Willapa, Nasel, and North empty into the bay and are all navigable. Fifteen miles above the entrance of Shoalwater bay lies Grays harbor, the entrance to which is marked by a bar unusually safe and easy of passage. Grays harbor covers an area of 70 square miles, most of which, however, is bare or shoal at low tide. The Chehalis, Hoquiam, Johns river, and Humptulips all empty into the harbor just inside the entrance and form an excellent anchorage.

PUGET SOUND.

This landlocked body of salt water is the distinguishing feature of the state of Washington as well as of the extreme northwestern section of the United States. The distance from the channel line in the Strait of Fuca to Olympia, the head of navigation, is 117 miles. Narrow inlets from 5 to 35 miles in length, all navigable for steamers and many for deep water ships, extend from the main body in all directions, the inside shore line on the sound following these ramifications being upward of 19,000 miles. The average depth of the sound is 70 fathoms, and it is remarkable that it has for its whole extent no rocks, quicksands, or shoals. A number of rivers flow into the sound, nearly all of which take their rise in the glaciers of Mount Tacoma and other peaks of the Cascade range, the principal being the Nooksachk, Skagit, Samish, Stillaguamish, Suohomish, Snoqualmie, Nesqually, Skokomish, Dwamish, and Puyallup.

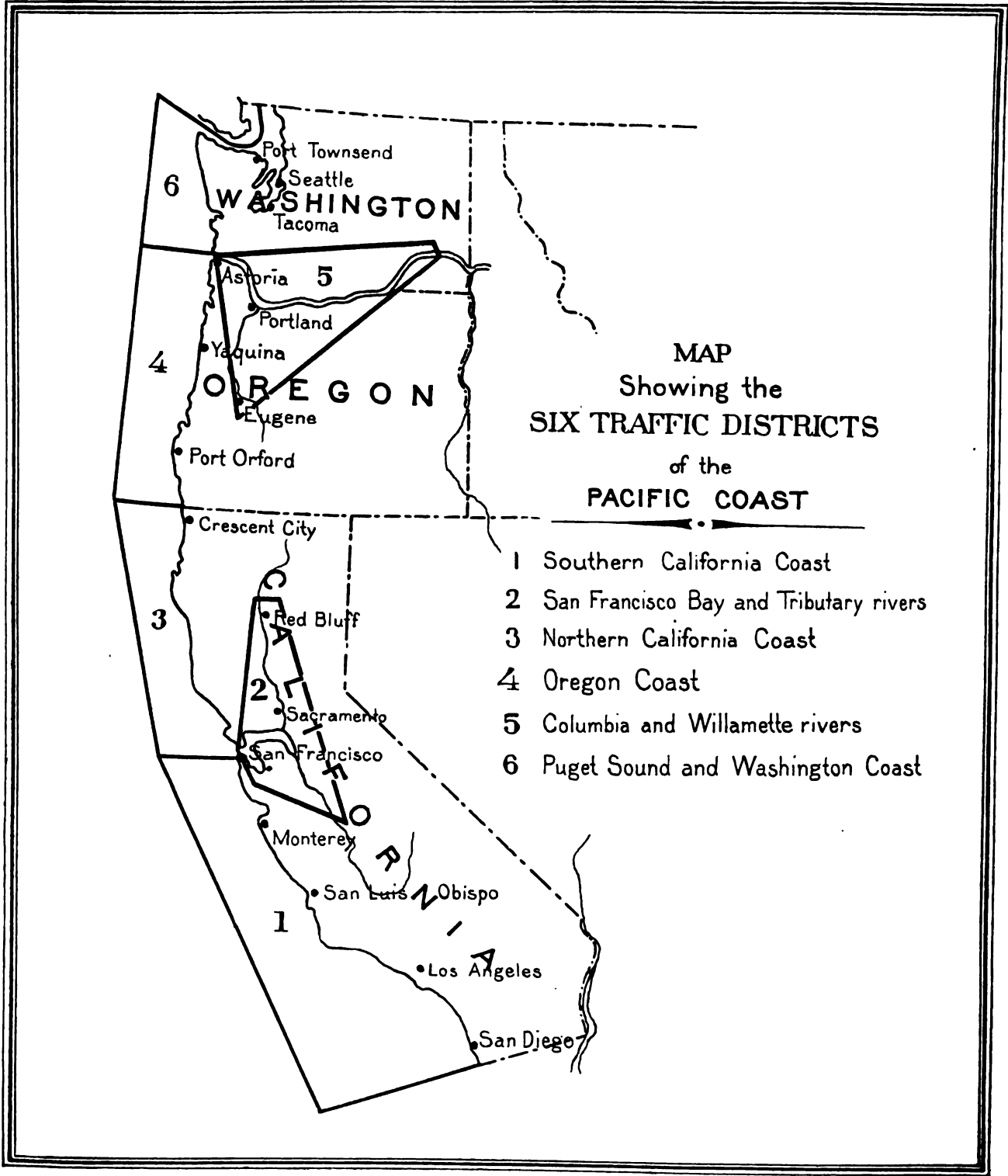
INSPECTION RETURNS.

A correct idea of the growth of active tonnage on the Pacific coast from the earliest date of official record up to the year 1880 may be gathered from the following table compiled from the records of the United States steamboat inspection service. The entries for the later years will be given in that portion of the text wherein the comparative statistics for the period bounded by the census years 1880-1890 are considered.

TABLE A.—STATEMENT SHOWING THE NUMBER AND TONNAGE OF ACTIVE STEAMERS INSPECTED ON THE PACIFIC COAST FROM 1855 TO 1880, INCLUSIVE, GIVEN FOR THE INSPECTION DISTRICTS OF SAN FRANCISCO, CALIFORNIA, PORTLAND, OREGON, AND PUGET SOUND, WASHINGTON.

YEARS.	TOTAL PACIFIC COAST.		SAN FRANCISCO.		PORTLAND.		PUGET SOUND.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
1855.....	33	19,714	33	19,714				
1856 (a).....								
1857.....	35	18,239	35	18,239				
1858.....	35	20,057	35	20,057				
1859.....	31	18,170	31	18,170				
1860.....	43	23,493	43	23,493				
1861 (a).....								
1862.....	75	30,477	50	27,654	25	2,823		
1863.....	68	25,868	44	22,509	24	3,359		
1864.....	70	32,598	43	28,853	27	3,745		
1865.....	88	38,124	63	33,686	25	4,438		
1866.....	99	46,812	73	42,738	26	4,074		
1867.....	119	57,198	85	49,162	34	8,036		
1868.....	107	69,645	87	64,254	20	5,391		
1869.....	166	75,934	113	65,660	53	10,274		
1870.....	154	63,156	101	53,625	53	9,531		
1871.....	180	83,279	116	70,539	50	10,388	20	2,352
1872.....	173	83,925	101	71,996	50	9,224	22	2,705
1873.....	204	83,271	124	67,804	55	12,358	25	3,109
1874.....	217	95,643	136	79,830	57	12,696	24	3,117
1875.....	222	98,368	136	79,392	64	15,690	22	3,286
1876.....	240	94,957	152	74,433	61	16,125	36	4,399
1877.....	271	102,912	163	78,348	71	19,548	37	5,016
1878.....	288	112,327	165	83,664	81	24,041	42	4,622
1879.....	292	109,790	161	78,401	92	26,789	39	4,600
1880.....	288	107,729	161	78,599	91	24,650	36	4,480

a In 1856 and 1861 no inspections were made.



LOCALITIES OF REGISTRATION, EQUIPMENT, AND TRAFFIC.

In order to facilitate the presentation of statistics two systems of assignment have been devised and followed. The first system is that of segregating the various reports according to the customs districts, of which there are nine in the states of California, Oregon, and Washington. These, with their distinctive names, ports of entry, and ports of delivery, together with their boundary lines, are as follows:

NAMES, PORTS, AND BOUNDARY LINES OF THE CUSTOMS DISTRICTS OF CALIFORNIA, OREGON, AND WASHINGTON.

CALIFORNIA.

NUM- BERS.	Name of district.	Port of entry.	Port of delivery.	Boundary line.
1.	San Diego	San Diego		From Mexico to Point San Mateo.
2.	Wilmington	Wilmington	Santa Barbara, San Buenaventura, and Hueneme.	From Point San Mateo to Point Sal, California.
3.	San Francisco	San Francisco	Vallejo and San Luis Obispo	From Point Sal to south line of Humboldt county, California.
4.	Humboldt	Eureka	Crescent City	From south line of Humboldt county, California, to Oregon.

OREGON.

5.	Southern Oregon	Coos bay	Ellensburg, Port Orford, and Gardiner.	From south line of Oregon to the south line of Lane county, Oregon.
6.	Yaquina	Yaquina	Newport	From south line of Lane county, Oregon, to Cape Lookout, Oregon.
7.	Oregon	Astoria		From Cape Lookout to Tillamook head, Oregon.
8.	Willamette	Portland		From Portland, Oregon, to mouth of Willamette river.

WASHINGTON.

9.	Puget Sound	Port Townsend		From Tillamook head to north boundary of Washington.
----	-------------------	---------------------	--	--

To these districts all the statistics of number, valuation, tonnage, construction, rig, occupation, earnings, expenses, and operations have been assigned. The statistics assigned to the customs districts stand as the reports of the vessels registered in the ports embraced in those districts, but do not stand as the reports of the trade of ports, nor do they indicate well defined movements of commerce. The plan was therefore adopted of selecting "traffic districts" between or within which a more or less distinctive trade is carried on; these districts being entitled as follows:

TRAFFIC DISTRICTS.

1 Southern California coast.	4 Oregon coast.	7 Foreign ports.
2 San Francisco bay and tributary rivers.	5 Columbia and Willamette rivers.	8 Atlantic ports.
3 Northern California coast.	6 Puget sound and Washington coast.	9 Alaska coast and Bering sea.

Of these districts, it will be observed, six are located on the coast of the states of California, Oregon, and Washington, their limitations being set down on the accompanying map, while the ports and trading points of all the districts at which Pacific coast vessels made a report of having called are given in the following lists:

District No. 1, entitled "Southern California coast", includes the following ports and landings:

Amesport, San Mateo county.	Moss landing, Monterey county.	Point Sur, Monterey county.
Anaheim, Orange county.	Newport, Orange county.	Port Harford, San Luis Obispo county.
Andersons landing, San Diego county.	Pacific Grove, Monterey county.	Redondo, Los Angeles county.
Aptos, Santa Cruz county.	Pajaro, Monterey county.	Salinas landing, Monterey county.
Avalon, Los Angeles county.	Palos Verdes, Los Angeles county.	San Buenaventura, Ventura county.
Ballona harbor, Los Angeles county.	Pescadero, San Mateo county.	San Clemente island, San Diego county.
Cape San Martin, Monterey county.	Piedras Blancas, San Luis Obispo county.	San Diego, San Diego county.
Carpenteria, Santa Barbara county.	Pigeon point, San Mateo county.	San Nicolas island, San Diego county.
Catalina island, San Diego county.	Pillar point, San Mateo county.	San Pedro, Los Angeles county.
Cayucos, San Luis Obispo county.	Point Arguello, Santa Barbara county.	San Simeon, San Luis Obispo county.
Coronado, San Diego county.	Point Buchon, San Luis Obispo county.	Santa Barbara islands, Santa Barbara county.
Davenport landing, Santa Cruz county.	Point Conception, Santa Barbara county.	Santa Barbara, Santa Barbara county.
Farallones, San Francisco county.	Point Cypress, Monterey county.	Santa Cruz island, Santa Barbara county.
Gaviota, Santa Barbara county.	Point Gordo, Monterey county.	Santa Cruz, Santa Cruz county.
Goleta, Santa Barbara county.	Point Lobos, San Francisco county.	Santa Monica, Los Angeles county.
Gordons, Monterey county.	Point Loma, San Diego county.	Santa Rosa island, Santa Barbara county.
Half Moon bay, San Mateo county.	Point Monterey, San Mateo county.	Soquel, Santa Cruz county.
Hueneme, Ventura county.	Point Nuevo Ano, San Mateo county.	Watsonville landing, Monterey county.
Lompoc landing, Santa Barbara county.	Point Pinos, Monterey county.	Williams landing, Santa Cruz county.
Los Berros, San Luis Obispo county.	Point Purissima, Santa Barbara county.	Wilmington, Los Angeles county.
Monterey, Monterey county.	Point Sal, Santa Barbara county.	
Morro, San Luis Obispo county.	Point San Pedro, Los Angeles county.	

District No. 2, entitled "San Francisco bay and tributary rivers", includes the following ports and landings:

Alameda, San Francisco bay.	Isleton, Sacramento river.	Richland, Sacramento river.
Alvarado, San Francisco bay.	Jarvis landing, San Francisco bay.	Rio Vista, Sacramento river.
Alviso, San Francisco bay.	Jersey landing, Sacramento river.	Roberts island, San Joaquin river.
Andersons landing, San Francisco bay.	Jewels landing, San Francisco bay.	Rolling mills, San Francisco bay.
Angel island, San Francisco bay.	Knights landing, Sacramento river.	Rose landing, San Joaquin river.
Antioch, San Joaquin river.	Lakeville, Sacramento river.	Rose slough, San Joaquin river.
Barrons landing, Suisun bay.	Linden, Sacramento river.	Sacramento, Sacramento river.
Benicia, San Francisco bay.	Long bridge, San Francisco bay.	Salt slough, San Joaquin river.
Bensons landing, San Francisco bay.	Lux ranch, San Francisco bay.	Salt works, San Francisco bay.
Berkeley, San Francisco bay.	McIntosh landing, Sacramento river.	San Bruno, San Francisco bay.
Birds landing, Sacramento river.	Maine prairies, Sacramento river.	San Francisco, San Francisco bay.
Black Diamond, Sacramento river.	Mare island, San Francisco bay.	San Francisquito, San Joaquin river.
Black point, San Francisco bay.	Martinez, San Francisco bay.	San Joaquin, San Joaquin river.
Blind bay, San Francisco bay.	Marysville, Sacramento river.	San Mateo, San Francisco bay.
Bob Mains landing, San Francisco bay.	Maurys landing, San Francisco bay.	San Pablo, San Francisco bay.
Bolton island, San Joaquin river.	Mayhews landing, San Francisco bay.	San Quentin, San Francisco bay.
Boulder island, San Joaquin river.	Meiggs wharf, San Francisco bay.	San Rafael, San Francisco bay.
Bracks landing, Sacramento river.	Melrose, San Francisco bay.	Sausalito, San Francisco bay.
Buhlers landing, Suisun bay.	Milpitas, San Francisco bay.	Seal bluff, San Francisco bay.
Burdsells landing, Sacramento river.	Mokelumne river, San Joaquin river.	Selbys, San Francisco bay.
Butte city, Sacramento river.	Mott landing, San Francisco bay.	Sierra point, San Francisco bay.
California city, San Francisco bay.	Mountain View, San Francisco bay.	Snodgrass slough, San Joaquin river.
Cant creek, San Francisco bay.	Mount Eden, San Francisco bay.	Sobrate, San Francisco bay.
Clarksburg, Sacramento river.	Mulfords landing, Napa creek.	Sonoma landing, San Francisco bay.
Collinsville, Sacramento river.	Napa, Napa creek.	Stockton, San Joaquin river.
Colusa, Sacramento river.	New Hope, Sacramento river.	Stones landing, San Francisco bay.
Courtland, Sacramento river.	New town, Sacramento river.	Stratton island, San Joaquin river.
Crows landing, Sacramento river.	Novato, San Francisco bay.	Suisun, Suisun bay.
Decota, Sacramento river.	Oakland, San Francisco bay.	Sutterville, San Joaquin river.
Dumbarton, Sacramento river.	Oregon dock, San Francisco bay.	Tabors landing, San Francisco bay.
Duttons, San Francisco bay.	Oyster beds, San Francisco bay.	Thomas landing, San Francisco bay.
Fairfield, Sacramento river.	Pacheco, San Francisco bay.	Tiburon, San Francisco bay.
Fair Oaks, Sacramento river.	Pattersons landing, Sacramento river.	Tolands landing, Sacramento river.
Firebaugh, San Joaquin river.	Petaluma creek, San Francisco bay.	Turks landing, Sacramento river.
Franklin, Sacramento river.	Petaluma, Petaluma creek.	Union city creek, San Joaquin river.
Freeport, Sacramento river.	Peter point, San Francisco bay.	Union house, Sacramento river.
Galinas creek, San Francisco bay.	Pinole, San Francisco bay.	Union iron works, San Francisco bay.
Goat island, San Francisco bay.	Pipers slough, San Francisco bay.	Union island, San Francisco bay.
Grafton, Sacramento river.	Pittsburg landing, San Joaquin river.	Vallejo, San Francisco bay.
Grand island, Sacramento river.	Port Costa, San Francisco bay.	Walnut Grove, Sacramento river.
Gravel beds, San Francisco bay.	Potato slough, San Joaquin river.	Warm springs, San Francisco bay.
Grayson, Sacramento river.	Powning, San Francisco bay.	West Berkeley, San Francisco bay.
Haystack landing, Sacramento river.	Presidio, San Francisco bay.	Whites landing, San Joaquin river.
Hunters point, San Francisco bay.	Ravenswood, San Joaquin river.	Woodbridge, San Joaquin river.
Iron Horse slough, Sacramento river.	Redwood city, San Francisco bay.	Yuba city, Sacramento river.

District No. 3, entitled "Northern California coast", includes the following ports and landings:

Albion, Mendocino county.	Fort Bragg, Mendocino county.	Port Kenyon, Humboldt county.
Arcata, Humboldt county.	Fort Ross, Sonoma county.	Rockport, Mendocino county.
Bodega, Sonoma county.	Greenwood creek, Mendocino county.	Rough and Ready, Mendocino county.
Bolinas, Marin county.	Gualala, Mendocino county.	Russian landing, Sonoma county.
Bowers landing, Mendocino county.	Hookton, Humboldt county.	Salt point, Sonoma county.
Biblers point, Sonoma county.	Humboldt, Humboldt county.	Shelter Cove, Mendocino county.
Bridgeport, Humboldt county.	Inglenook, Mendocino county.	Signal point, Mendocino county.
Buckport, Humboldt county.	Klamath river, Humboldt county.	Smiths river, Del Norte county.
Casper, Mendocino county.	Little river, Mendocino county.	South bay, Humboldt county.
Cleone, Mendocino county.	Mad river, Humboldt county.	Stewarts point, Sonoma county.
Collins landing, Mendocino county.	Mendocino city, Mendocino county.	Stillwater Cove, Sonoma county.
Crescent, Del Norte county.	Myrtle creek, Humboldt county.	Table bluff, Humboldt county.
Cuffey Cove, Mendocino county.	Navarro, Mendocino county.	Timber Cove, Sonoma county.
Duxbury point, Sonoma county.	North Port, Mendocino county.	Tomales, Marin county.
Eel river, Humboldt county.	Noyo, Mendocino county.	Trinidad, Humboldt county.
Eureka, Humboldt county.	Point Arena, Mendocino county.	Ussal creek, Mendocino county.
Fields landing, Humboldt county.	Point Gorda, Humboldt county.	Westport, Mendocino county.
Fish rock, Mendocino county.	Point Reyes, Marin county.	Whitesboro, Mendocino county.
Fisks mill, Sonoma county.	Point Tomales, Marin county.	

District No. 4, entitled "Oregon coast," includes the following ports and landings:

Alsea bay, Benton county.
 Bandon, Coos county.
 Bay city, Tillamook county.
 Cape Blanco, Curry county.
 Cape Foulweather, Tillamook county.
 Cape Gregory, Coos county.
 Cape Lookout, Tillamook county.
 Cape Mears, Tillamook county.
 Cape Orford, Curry county.
 Cape Perpetua, Benton county.
 Chetco, Curry county.
 Collins, Benton county.
 Coos bay, Coos county.
 Coos city, Coos county.
 Coquille river, Coos county.
 Elk city, Benton county.
 Ellensburg, Curry county.

Empire city, Coos county.
 Florence, Lane county.
 Gardiner, Douglas county.
 Garibaldi, Tillamook county.
 Hobsonville, Tillamook county.
 Marshfield, Coos county.
 Mishawaka, Clatsop county.
 Myrtle, Coos county.
 Nehalem bay, Clatsop county.
 Nestocton, Tillamook county.
 Netarts, Tillamook county.
 Newport, Benton county.
 Norfolk, Douglas county.
 Oretown, Tillamook county.
 Oyster bay, Benton county.
 Oysterville, Benton county.
 Parkersburg, Coos county.

Port Orford, Curry county.
 Randolph, Coos county.
 Rock creek, Tillamook county.
 Rogue river, Curry county.
 Scottsburg, Douglas county.
 Seaton, Lane county.
 Shoalwater bay, Coos county.
 Siletz bay, Tillamook county.
 Siuslaw, Lane county.
 Smiths river, Douglas county.
 Sulphur springs, Douglas county.
 Tillamook, Tillamook county.
 Toledo, Benton county.
 Umpqua river, Douglas county.
 Utter city, Coos county.
 Yakima, Benton county.
 Yaquina, Benton county.

District No. 5, entitled "The Columbia and Willamette rivers", includes the following ports and landings:

Albany, Willamette river.
 Albina, Willamette river.
 Arlington, Columbia river.
 Astoria, Columbia river.
 Beaver, Columbia river.
 Blalock, Columbia river.
 Blind slough, Columbia river.
 Booneville, Willamette river.
 Butteville, Willamette river.
 Canby, Willamette river.
 Cape Disappointment, Columbia river.
 Cape Horn, Columbia river.
 Carroll, Columbia river.
 Cascades, Columbia river.
 Castle Rock, Columbia river.
 Cathlamet, Columbia river.
 Chinook, Columbia river.
 Clackamas, Willamette river.
 Clark river, Upper Columbia river.
 Clatskanie river, Columbia river.
 Clatsop, Columbia river.
 Clifton, Columbia river.
 Collis, Columbia river.
 Columbia, Columbia river.
 Cool creek, Columbia River.
 Corvallis, Willamette river.
 Coweewan, Columbia river.
 Cowlitz, Columbia river.
 Coyote, Columbia river.
 Deep creek, Upper Columbia river.
 Deer island, Columbia river.
 Dodsons, Columbia river.
 Eagle cliff, Columbia river.
 East Portland, Willamette river.
 Enterprise, Columbia river.
 Eugene city, Willamette river.
 Fairfield, Willamette river.

Fern Hill, Columbia river.
 Fort Canby, Columbia river.
 Fort Stevens, Columbia river.
 Freeport, Columbia river.
 Gnat creek, Columbia river.
 Grays river, Columbia river.
 Harringtons point, Columbia river.
 Harrisburg, Willamette river.
 Hess slough, Columbia river.
 Hoods river, Columbia river.
 Hunters point, Columbia river.
 Ilwaco, Columbia river.
 Independence, Willamette river.
 John Days river, Columbia river.
 Juniper, Columbia river.
 Kalama, Columbia river.
 Kelso, Columbia river.
 Klakamas, Willamette river.
 Klickitat, Columbia river.
 Knappa, Columbia river.
 Knappton, Columbia river.
 La Center, Columbia river.
 Lake river, Columbia river.
 Lewis and Clarke river, Columbia river.
 Lincoln, Willamette river.
 Marshland, Columbia river.
 Martins slough, Columbia river.
 Millers, Willamette river.
 Milton, Columbia river.
 Milwaukee, Willamette river.
 Mohawk, Willamette river.
 Monticello, Columbia river.
 Mosier, Columbia river.
 Mount Coffin, Columbia river.
 Oak Point, Columbia river.
 Olney, Columbia river.
 Oregon city, Willamette river.

Oswego, Willamette river.
 Pekin, Columbia river.
 Peoria, Willamette river.
 Pillar rock, Columbia river.
 Point Adams, Columbia river.
 Portland, Willamette river.
 Quinn, Columbia river.
 Ranier, Columbia river.
 Rays landing, Willamette river.
 Rowena, Columbia river.
 St. Helen, Columbia river.
 St. Johns, Columbia river.
 Salem, Willamette river.
 Sand island, Willamette river.
 Scappoose, Columbia river.
 Sellwood, Willamette river.
 Skamokawa, Columbia river.
 Skipanon, Columbia River.
 Springfield, Willamette river.
 Stokes, Columbia river.
 The Dalles, Columbia river.
 Toledo, Columbia river.
 Tongue point, Columbia river.
 Tualatin, Willamette river.
 Umatilla, Columbia river.
 Upper Columbia, Columbia river.
 Vancouver, Columbia river.
 Venton, Columbia river.
 Wallawalla, Columbia river.
 Wallula, Columbia river.
 Washougal, Columbia river.
 Waterford, Columbia river.
 Westport, Columbia river.
 Weyeth, Columbia river.
 Wheatland, Willamette river.
 Youngs river, Columbia river.

District No. 6, entitled "Puget sound and Washington coast", includes the following ports and landings:

Aberdeen, coast.	Gull harbor, Puget sound.	Port Madison, Puget sound.
Anacortes, Puget sound.	Hadlock, Puget sound.	Port Orchard, Puget sound.
Arcadia, Puget sound.	Hats slough, Puget sound.	Port Townsend, Puget sound.
Avondale, Puget sound.	Henderson bay, Puget sound.	Poulsbo, Puget sound.
Ballard, Puget sound.	Hoko, Puget sound.	Purdy, Puget sound.
Bay city, coast.	Hoquiam, coast.	Puyallup, Puget sound.
Bellingham bay, Puget sound.	Humtulpis, Puget sound.	Pysht, Puget sound.
Birch bay, Puget sound.	Irondale, Puget sound.	Quartermaster's harbor, Puget sound.
Blaine, Puget sound.	Johns river, coast.	Quilcene, Puget sound.
Bruceport, coast.	Kamilche, Puget sound.	Quillayute, coast.
Cape Flattery, coast.	Kanaka bay, coast.	Quinault, coast.
Cape Johnson, coast.	Kirkland, Puget sound.	Renton, Puget sound.
Cascade bay, coast.	Lacunner, Puget sound.	Riparia, Snake river.
Caseys inlet, Puget sound.	Lake bay, Puget sound.	Riverside, coast.
Cedarville, coast.	Lakeview, Puget sound.	Roche harbor, Puget sound.
Centerville, Puget sound.	Lopes island, Puget sound.	St. Helens, coast.
Chehalis bay, coast.	Lowell, Puget sound.	Salmon bay, Puget sound.
Chicago, Puget sound.	Lumi, Puget sound.	Samish, Puget sound.
Chico, Puget sound.	Lyman, Puget sound.	San Juan, Puget sound.
Chimacum, Puget sound.	Lynden, Puget sound.	Seabeck, Puget sound.
Cluckamut, Puget sound.	Markham, coast.	Seattle, Puget sound.
Coburg, Puget sound.	Marysville, Puget sound.	Seguin, Puget sound.
Cosmopolis, coast.	McKay, Puget sound.	Sehome, Puget sound.
Coupeville, Puget sound.	Melbourne, coast.	Semiahmoo, Puget sound.
Coveland, Puget sound.	Minter, Puget sound.	Shelton, Puget sound.
Crescent bay, Puget sound.	Montesano, coast.	Sidney, Puget sound.
Cypress, Puget sound.	Mount Vernon, Puget sound.	Skagit, Puget sound.
Damon, coast.	Mukilteo, Puget sound.	Skokomish, Puget sound.
Deception bay, Puget sound.	Nasel, coast.	Snohomish, Puget sound.
Des Moines, Puget sound.	Neah bay, Puget sound.	South Bend, coast.
Dewatto, Puget sound.	Nesqually, Puget sound.	Springbrook, Puget sound.
Doe bay, Puget sound.	New Dungeness, Puget sound.	Stanwood, Puget sound.
Dogfish bay, Puget sound.	New London, Puget sound.	Steilacoom, Puget sound.
Dunamish, Puget sound.	Nibbeville, Puget sound.	Stillaguamish, Puget sound.
Dwamish, Puget sound.	Nooksachk, Puget sound.	Sunshine, coast.
East sound, Puget sound.	North cove, coast.	Tacoma, Puget sound.
Ebeys landing, Puget sound.	Oak harbor, Puget sound.	Tolt, Puget sound.
Edison, Puget sound.	Oakland, Puget sound.	Tulalip, Puget sound.
Edmunds, Puget sound.	Olympia, Puget sound.	Tumwater, Puget sound.
Elma, coast.	Orcas island, Puget sound.	Union city, Puget sound.
Fairhaven, Puget sound.	Oysterville, coast.	Utsaladdy, Puget sound.
Falls city, Puget sound.	Petersons point, coast.	Vashon, Puget sound.
Fidalgo, Puget sound.	Port Angeles, Puget sound.	Vaughn, Puget sound.
Florence, Puget sound.	Port Blakeley, Puget sound.	Waldron, Puget sound.
Freeport, Puget sound.	Port Discovery, Puget sound.	Whatcom, Puget sound.
Friday harbor, Puget sound.	Port Gamble, Puget sound.	White river, Puget sound.
Gig harbor, Puget sound.	Port Hadlock, Puget sound.	Willapa, coast.
Grays harbor, coast.	Port Ludlow, Puget sound.	Willpah, coast.
Guemes, Puget sound.		

Traffic district No. 7, entitled "Foreign", includes the ports of call and trading points embraced in the following branches: Japanese and Chinese trade; East India trade; Mexican trade; Central and South American trade; South Sea trade; Canadian trade, and European trade:

JAPANESE AND CHINESE TRADE.

Amoy, China.	Nagasaki, Japan.	Suatow, China.
Foochow, China.	Nicholasofski, Siberia.	Vladivostock, Siberia.
Hakodate, Japan.	Petropaulofski, Siberia.	Yokohama, Japan.
Hongkong, China.	Shanghai, China.	

EAST INDIA TRADE.

Bangkok, Siam.	Manilla, Philippine islands.	Saigon, Cochin China.
Batavia, Java.	Padang, Sumatra.	Samarari, Philippine islands.
Bombay, Hindostan.	Pakalongon, Borneo.	Singapore, Malaya.
Calcutta, Hindostan.	Penange, Malaya.	Sourabaya, Java.
Madagascar island.		

MEXICAN TRADE.

Acapulco, Guerrero.	La Paz, Lower California.	San Benito, Sinaloa.
Cape San Lucas, Lower California.	Magdalena bay, Lower California.	San Blas, Jalisco.
Ceros island, Lower California.	Manzanillo, Colima.	San Quentin, Lower California.
Coronado islands, Lower California.	Mazatlan, Sinaloa.	Santa Margerita island, Lower California.
Ensenada, Lower California.	Port Angel, Lower California.	Santa Rosalie island, Lower California.
Guaymas, Sonora.	Raza island, Lower California.	Tonala, Chiapas.

CENTRAL AND SOUTH AMERICAN TRADE.

Acajutla, Salvador.	Coquimbo, Chile.	Payta, Peru.
Amapalla, Honduras.	Corinto, Nicaragua.	Peten, Peru.
Arico, Chile.	Guayaquil, Ecuador.	Pimental, Peru.
Autafogasta, Chile.	Huasco, Chile.	Pisagua, Chile.
Balenita, Ecuador.	Iquique, Chile.	Pisco, Peru.
Buena Ventura, United States of Colombia.	La Libertad, Salvador.	Punta Arenas, Costa Rica.
Caldera, Chile.	La Union, Salvador.	Realjo, Guatemala.
Callao, Peru.	Manta, Ecuador.	Salavari, Peru.
Cape Corientes, Chile.	Molendo, Peru.	San José, Guatemala.
Carra bay, Peru.	Nicaragua, Guatemala.	San Juan Del Sur, Nicaragua.
Champerico, Guatemala.	Panama, United States of Colombia.	Tumaco, United States of Colombia.
Cobija, Chile.	Pascamayo, Peru.	Valparaiso, Chile.
Colba, Guatemala.		

SOUTH SEA TRADE.

Apia, Samoan islands.	Homapo, Hawaiian islands.	Newcastle, New South Wales.
Caroline islands.	Honolulu, Hawaiian islands.	Papeete, Society islands.
Fanning islands.	Howland islands.	Solomon islands.
Flint islands.	Kahului, Hawaiian islands.	Spreecklesville, Hawaiian islands.
Friendly islands.	Mahukona, Hawaiian islands.	Sydney, New South Wales.
Gilbert islands.	Marshall islands.	Tahiti, Society islands.
Hilo, Hawaiian islands.	Melbourne, New South Wales.	Tutuila, Samoan islands.

CANADIAN TRADE.

Barkley sound, British Columbia.	Dunsmuir, Vancouver island, British Columbia.	Port Moody, British Columbia.
Bellingham bay, British Columbia.	Moodyville, British Columbia.	Texada island, Straits of Georgia, British Columbia.
Chemainus, Vancouver island, British Columbia.	Nanimo, Vancouver island, British Columbia.	Vancouver, British Columbia.
Comox, Vancouver island, British Columbia.	New Westminster, British Columbia.	Victoria, Vancouver island, British Columbia.
Departure bay, Vancouver Island, British Columbia.	Nootka sound, British Columbia.	

EUROPEAN TRADE.

The large European ports, the principal trading having been with Liverpool, Plymouth, London, Hull, Bordeaux, and Hamburg.

District No. 8, entitled "Atlantic ports", includes all seaports on the United States Atlantic coast.

District No. 9, entitled "Alaska coast and Bering sea", includes the following ports and trading points:

Bartlett bay.	Douglas island.	Howkan.	Labaska.	Point Hoonah.	Sutteshau.
Bristol bay.	Etches bay.	Juneau.	Labouchere bay.	Port Clarence.	Unalaska.
Burroughs bay.	Fin point.	Karluk.	Mitlakotla.	Prince Williams	Uyak.
Chignik.	Fish bay.	Killisnoo.	Morgovia.	sound.	Wrangell island.
Chilkat.	Fort Tongass.	Klawak.	Nichols bay.	Pyramid harbor.	Yess bay.
Cook inlet.	Freshwater bay.	Kodiak.	Nushagak.	Sitka.	

PLAN OF THE TABLES.

For the presentation of the statistical results of the investigation by the Eleventh Census into the industry of transportation by water on the Pacific coast, 40 tables have been prepared, their respective numbers and titles being as follows:

Equipment, occupation, and construction:

- Table 1. Equipment of all craft.
- Table 2. Occupation and valuation by classes.
- Table 3. Ownership by classes.
- Table 4. Ownership by localities.
- Table 5. Construction by classes.
- Table 6. Construction by localities.

Traffic operations:

- Table 7. Traffic in general.
- Table 8. Freight traffic by commodities.
- Table 9. Interdistrict movement (freight).
- Table 10. Interdistrict movement (mileage).

Earnings and expenses:

- Table 11. Financial account in general.
- Table 12. Itemized expense account.
- Table 13. Employés and wages in detail.
- Table 14. Employés and wages by coast totals.
- Table 15. Fuel account.

General operations by classes:

- Table 16. Passenger and freight vessels.
- Table 17. Ferryboats.
- Table 18. Fishing vessels.
- Table 19. Harbor tugs.
- Table 20. Pilot boats.
- Table 21. Yachts and pleasure boats.
- Table 22. No traffic report.
- Table 23. Summary.

Comparative statistics:

- Table 24. Steamers and unrigged craft in 1880 and 1889.
- Table 25. Steamers by classes in 1880 and 1889.
- Table 26. Gross earnings of steamers in 1880 and 1889.
- Table 27. Steamers' crews and wages in 1880 and 1889.
- Table 28. Steamer traffic in 1880 and 1889.
- Table 29. Fleets for the 10 years, 1880-1889.
- Table 30. Aggregates and averages for the 10 years, 1880-1889 (all vessels).
- Table 31. Aggregates and averages for the 10 years, 1880-1889 (steamers).
- Table 32. Aggregates and averages for the 10 years, 1880-1889 (sailing vessels).
- Table 33. Aggregates and averages for the 10 years, 1880-1889 (unrigged craft).
- Table 34. Tonnage fluctuations for the 10 years, 1880-1889 (all craft).
- Table 35. Tonnage fluctuations for the 10 years, 1880-1889 (steamers).
- Table 36. Tonnage fluctuations for the 10 years, 1880-1889 (sailing vessels).
- Table 37. Tonnage fluctuations for the 10 years, 1880-1889 (unrigged craft).
- Table 38. Shipbuilding for the 10 years, 1880-1889 (general).
- Table 39. Shipbuilding for the 10 years, 1880-1889 (steamers).

Congressional appropriations:

- Table 40. Appropriations for the Pacific coast by localities.

EQUIPMENT AND OCCUPATION.

Table 1. "Equipment of all craft", shows the number, tonnage, and value of all steamers, sailing vessels, and unrigged craft of over five tons burden, registered or owned in the customs districts of the states of California, Oregon, and Washington, in the year ended December 31, 1889, no matter what their occupation, or whether they were in occupation or not.

Table 2, entitled "Occupation and valuation by classes", analyzes the entries of Table 1 by separating the Pacific coast fleet into classes of occupation or pursuit. The steamers are divided into five classes, namely, those engaged in the transportation of both passengers and freight, ferryboats, fishing vessels, harbor tugs, and yachts; the sailing vessels are divided into four classes: freighters, fishing vessels, pilot boats, and yachts. A separate entry is also made of those steamers and sailing vessels which made no report of traffic operations. Separate entry is also made of the barges, lighters, and scows, grouped as unrigged. For each of these classifications the number, gross tonnage, valuation, and value per gross ton are given of vessels so classified allotted to each customs district, with totals for the states and coast.

OWNERSHIP BY CLASSES.

Table 3 shows the number, tonnage, and value of all classes of vessels allotted, respectively, to individual, joint stock, and corporate ownership, the entries being grouped for each class of craft and credited separately to each customs district, with totals for the states and coast, as in the other tables of equipment.

Table 4, "Ownership by localities", treats of the same subject as Table 3, except that instead of grouping the data by classes of occupation it groups them by localities, gathering under the head of each district all the vessels of all classes forming its fleet.

CONSTRUCTION.

Table 5, "Construction by classes", shows the number, tonnage, and value of all classes of vessels, respectively, constructed of wood, composite, and iron or steel, the entries being grouped for each class of craft and credited separately to each district, with totals for the states and coast.

Table 6, "Construction by localities", bears the same relation to Table 5 that Table 4 does to Table 3; that is, instead of grouping the data of construction by classes of occupation, it groups them by localities, gathering under the head of each district all the vessels of all classes forming its fleet.

TRAFFIC.

The statistics of traffic are presented in four tables numbered from 7 to 10, inclusive. The first, Table 7, "Traffic in general", contains the number of vessels, their tonnage, trips made, number of miles covered, freight moved, and passengers carried by all freight and passenger carrying craft of the Pacific coast.

Table 8, "Freight traffic by commodities", divides the gross statement of freight carried into the principal items of classified report.

The preceding tables have all been assigned to the customs districts described in the paragraph entitled "Localities of registration, equipment, and traffic", but in the two following tables (9 and 10) the statistics of traffic operations are assigned to the traffic districts described in the same paragraph. Table 9, for instance, entitled "Interdistrict movement (freight)", shows how many tons of each commodity were moved in or between any of the six traffic districts into which the coast has been marked off, and between any of these districts and foreign ports, Atlantic ports, and the Alaska coast and the Bering sea, while Table 10 shows how many miles were covered by the vessels engaged in the transportation of this freight, the entries in each table being made in such way as to show how the traffic vessels of each port were occupied, where they went, how many tons they carried, and how many miles they traveled during the year of report.

EARNINGS AND EXPENSES.

Four tables, numbered 11 to 14, are devoted to this part of the subject. Table 11, "Financial account in general", is almost a balance sheet of the industry of water transportation on the Pacific coast, showing as it does the gross earnings, expenses, and remaining net earnings of the coast fleet reporting their income and expenditure, the entries being made for the ports of registration, with totals for states and coast.

In Table 12, entitled "Itemized expense account", the expenses of reporting vessels, following the same division of customs districts and states, are divided into the various items of port charges, wages, provisions, current repairs, fuel (for steamers), other running expenses, commissions, insurance, taxes, office expenses, and other shore expenses, these being the eleven divisions of the expenditures.

EMPLOYÉS AND WAGES.

A still further subdivision of expenses is made in Table 13, "Employés and wages in detail". Here the monthly wages paid in each district to all grades of employés on vessels engaged in the transportation of freight and passengers is given, together with the number of each class of employés making up the ordinary crews required as the complement of all the reporting craft engaged in traffic operations.

Table 14, "Employés and wages by coast totals", is really a résumé of Table 13, taking up as it does the total number of employés of each grade and the aggregate and average monthly wages paid to each of these grades on the coast for all operating vessels engaged in passenger and freight traffic on the Pacific coast, the only segregations being those of steamers and sailing vessels.

FUEL ACCOUNT.

Table 15, entitled "Fuel account", applies only to steamers, and gives the amount of coal and wood burned by the steamers operated in the customs districts, together with the cost of the same.

GENERAL OPERATIONS BY CLASSES.

In the eight tables numbered from 16 to 23, inclusive, embraced under the above head, a separate account is given of the general operations of the six classes of vessels into which they were divided in Table 2; that is, freight and passenger vessels, ferryboats, fishing vessels, harbor tugs, pilot boats, yachts, and pleasure boats, with an additional table for those craft not making any traffic report and one in résumé. The items reported on, wherever practicable, are number, tonnage, value, trips made, miles traveled, freight moved, passengers carried, gross earnings, expenses, net earnings, common seamen employed, average wages per month paid to common seamen, number making up ordinary crews, total number of men employed, and total wages paid during the year.

COMPARATIVE STATISTICS.

All the tables which have been previously considered present only what may be called the positive statistics for the year ended December 31, 1889, whereas the sixteen tables numbered inclusively 24 to 39 give the comparative statistics either for the two years 1880 and 1889 or for the ten years 1880-1889. In the first five tables the two years of report alone are taken into consideration, the items being gathered from the transportation volume issued for the census of 1880 and from the schedules of the present inquiry.

The eleven tables, 29 to 39, inclusive, have been largely made up from information furnished this office by the Commissioner of Navigation. In Table 29 there are given the figures showing the number and tonnage of all steamers, sailing vessels, and barges registered in the customs districts of the Pacific coast for the ten years 1880-1889. In Tables 30, 31, 32, and 33 the number, aggregate, and average tonnage of each steamer, sailing vessel, and barge fleet belonging to each district is given for the decade in question. Tables 34, 35, 36, and 37 give the fluctuations of the annual average number and annual average tonnage of all vessels registered in the different customs districts. Tables 38 and 39 are records of the shipbuilding for the period in question, the first giving the number and tonnage of all steamers, sailing vessels, and barges built during those years in the various customs districts, and the second furnishing the number and tonnage of all steamers built in the various districts, arranged according to their methods of propulsion; that is, whether propellers, or side-wheel or stern-wheel steamers.

CONGRESSIONAL APPROPRIATIONS.

The last of the tables (Table 40) gives the amount appropriated by Congress for the survey, improvement, and maintenance of the ports, harbors, and landings on the Pacific coast and of the rivers flowing into them, from the date of the earliest appropriation down to and including that of the act of Congress of September 19, 1890. These sums, so far as the grouping of periods is concerned, are given: first, up to and including 1879; second, from 1880 to 1889, inclusive; third, the appropriations in 1890; and fourth, the total appropriations from first to last. So far as localities are concerned, these sums are given with considerable detail, the items not only being furnished for each state but for each locality on which the government money has been spent or for which it has been appropriated.

WHAT THE TABLES SHOW.

Passing from a consideration of the plan of the tables to that of the data contained in them, and taking them up in their order, the first fact to be noticed is that on the Pacific coast, in the year ended December 31, 1889, the floating equipment numbered 1,842 craft, having a tonnage of 441,939, and an estimated commercial value as returned in the schedules of \$23,067,370. Of this fleet 531 were steamers with a tonnage of 170,503 and a value of \$15,526,455; 822 were sailing vessels with a tonnage of 208,080 and a value of \$6,715,570, and 489 unriggered craft with a tonnage of 63,356 and a value of \$825,345. Of these totals California had 251 steamers with a tonnage of 106,667 and a value of \$9,792,905; 697 sailing vessels with a tonnage of 162,946 and a value of \$5,753,975, and 229 unriggered craft with a tonnage of 35,273 and a value of \$601,200; Oregon had 165 steamers with a tonnage of 50,623 and a value of \$4,492,200; 43 sailing vessels with a tonnage of 2,776 and a value of \$97,065, and 158 unriggered craft with a tonnage of 15,559 and a value of \$144,100; and Washington had 115 steamers with a tonnage of 13,208 and a value of \$1,241,350; 82 sailing vessels with a tonnage of 42,358 and a value of \$864,530, and 102 unriggered craft with a tonnage of 12,524 and a value of \$80,045. As will be seen by examining Table 1, the particulars of the fleets are given for each of the 9 customs districts located in the states of California, Oregon, and Washington, the relative importance of each of these districts being clearly shown by their entries. That of San Francisco preponderates, its fleet numbering 1,018 out of a total of 1,842, its tonnage amounting to 289,750 out of a total of 441,939, and the value of its fleet reaching \$15,400,205 out of a total of \$23,067,370. It must be remembered that the figures for the district of Puget sound (299 craft with a tonnage of 68,090 and a value of \$2,185,925) really cover all the shipping belonging to the state of Washington, while in Oregon there are four districts, three of which, southern Oregon, Oregon, and Willamette, respectively, represent the ports of Coos bay, Astoria, and Portland, the fleet of southern Oregon standing at 109 craft, with a tonnage of 3,887 and a value of

\$99,290; that of Oregon being 105, with a tonnage of 5,353 and a value of \$347,990, and that of Willamette being 136, with a tonnage of 57,402 and a value of \$3,998,485. This large value of the Portland fleet is due to the fact that out of its whole fleet 96 are steamers with a value of \$3,850,100, while Astoria has only 41 steamers with a value of \$284,100, and Coos bay 15 steamers with a value of \$70,600.

In Table 2 the 1,842 craft which constituted the total fleet of the Pacific coast are divided into their classes of occupation or pursuit, entries being made to show the number, gross tonnage, gross valuation, and value per ton of passenger and freight boats, sail and steam, ferryboats, harbor tugs, pilot boats, pleasure craft, fishing vessels, unriggered craft, and those miscellaneous vessels which furnished no report of traffic operations. From the figures so presented the following summarized results are obtained:

TABLE B.—SUMMARY SHOWING THE NUMBER, GROSS TONNAGE, AND ESTIMATED COMMERCIAL VALUE OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE PACIFIC COAST IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Gross tonnage.	Valuation.
Total	1,842	441,939	\$23,067,370
Steamers	531	170,503	15,528,455
Passenger and freight	354	129,491	12,660,755
Ferry	38	24,630	979,300
Fish	24	4,343	411,500
Harbor tugs	70	6,109	1,120,800
Yachts	3	03	6,500
No traffic report	42	5,867	347,600
Sailing vessels	822	208,080	6,715,570
Freight	647	194,478	6,112,340
Fish	60	6,372	280,955
Pilot boats	9	418	49,700
Yachts	25	612	69,300
No traffic report	81	6,200	203,275
Unrigged craft	489	61,356	\$25,345

Material will also be found in Table 2 for a calculation showing the average tonnage, average commercial value, and average value per ton of the ten classes mentioned; and in the accompanying summary these averages will be found worked out for the six principal classes of vessels, the miscellaneous class here including yachts, fishing vessels, and those vessels for which no traffic was reported.

TABLE C.—SUMMARY SHOWING THE NUMBER, AVERAGE TONNAGE, AVERAGE VALUE PER VESSEL, AND AVERAGE VALUE PER GROSS TON OF THE PRINCIPAL CLASSES OF VESSELS OWNED ON THE PACIFIC COAST IN 1889.

CLASSES OF VESSELS.	Number of vessels.	Average tonnage.	Average commercial value.	Average value per gross ton.
Total	1,842	240	\$12,523	\$52.20
Steamers	531	321	29,240	91.06
Passenger and freight	354	366	35,765	97.77
Ferry	38	648	25,771	39.76
Harbor tugs	70	87	10,011	183.47
Miscellaneous	69	149	11,096	74.53
Sailing vessels	822	253	8,170	32.27
Freight	647	301	9,447	31.43
Pilot boats	9	46	5,522	118.00
Miscellaneous	166	79	3,335	41.86
Unrigged craft	489	130	1,688	13.03

VALUES.

It will be seen from this summary that the largest average tonnage was that of the ferryboats, 648, and that the sailing vessels and steamers engaged in freighting business ran very close in their average tonnage, the figures being respectively 301 and 366. The average value of these freighters, however, differed very materially, for, while the average value of the steam freighters was \$97.77 per gross ton, that of the sailing vessels was only \$31.43, the larger value of the steamers being due to the presence of machinery. It will be observed, too, in looking at Table 2, that the value per gross ton of passenger and freight steamers by no means keeps on an even basis in all localities, the lowest being in the Humboldt district, where the average value per gross ton was \$63.19, and the highest being at Wilmington, where it was \$197.75. The schedule calls for the "estimated commercial value", and the figures set down ran high or low according to the basis upon which the estimator placed his value. In some cases a man estimated his vessel at what it cost, in another case he estimated it only at what it would realize in sale; the insurance men had their estimate, while in many other cases the idea was rigidly held that the values would be used as a basis for taxation. The average value per gross ton of steam passenger and freight boats has been figured up to be \$97.77, and this, as in the case of the coast estimate for nearly all the classes, may be accepted as a reasonably close one.

With the exception of the ferryboats, the average value per ton of the principal classes of vessels on the Atlantic coast and Gulf of Mexico agrees very closely with that which has been arrived at on the Pacific coast. On the Atlantic coast the average value per gross ton of passenger and freight steamers is \$75.81, while on the Pacific coast it is \$97.77; that of harbor tugs on the Atlantic coast is \$166.29, while on the Pacific coast it is \$183.47. That of the sailing freighters on the Atlantic coast is \$30.77, while on the Pacific coast it is \$31.43, a difference of but 66 cents per ton. The parallelism of average is still closer in the case of the unrigged craft, that on the Atlantic coast being \$12.57 and on the Pacific coast \$13.03, a difference of but 46 cents per ton.

OWNERSHIP.

The statistics of ownership are only given for the 1,353 steamers and sailing vessels of the Pacific coast fleet, the data being grouped in Table 3 according to the various classes and in Table 4 according to the various localities. The ownership is treated under the three heads of individual, joint stock, and corporate, the number, aggregate tonnage, and valuation of each class of craft being given under each of these heads. It is seen from Table 3, for example, that of the 531 steamers of the Pacific coast 252 were owned by individuals, and that the tonnage and valuation of these individually owned steamers were 34,114 and \$3,147,650; that 25 of them, with a tonnage of 3,368 and a value of \$324,500, were owned by joint stock companies, and that the remaining 254, with a tonnage of 133,021 and a value of \$12,054,305, were owned by corporations. Of the 822 sailing vessels 742, with a tonnage of 166,591 and a value of \$5,853,465, were owned by individuals; 78, with a tonnage of 40,855 and a value of \$843,105, were owned by corporations, only 2, with a tonnage of 634 and a value of \$19,000, were owned by joint stock companies. Putting the steam and sail together, this will mean that out of the total fleet 994, with a tonnage of 200,705 and a value of \$9,001,115, were owned by individuals; that 27, with a tonnage of 4,002 and a value of \$343,500, were owned by joint stock companies, and that 332, with a tonnage of 173,876 and a value of \$12,897,410, were controlled by corporate ownership. The excess in the average tonnage of corporate owned vessels over those owned by individuals and joint stock companies is plainly set down in the subjoined summary:

TABLE D.—SUMMARY SHOWING THE AVERAGE TONNAGE OF STEAMERS AND SAILING VESSELS ON THE PACIFIC COAST OWNED BY INDIVIDUALS, JOINT STOCK COMPANIES, AND CORPORATIONS

CLASSES OF VESSELS.	AVERAGE TONNAGE PER VESSEL BY OWNERSHIP.		
	Individual.	Joint stock.	Corporation.
Total	202	148	324
Steamers	135	135	524
Sailing vessels	225	317	324

The relative character of the corporate ownership is also to be seen in the columns of valuation, where it is shown that the value of the vessels so owned stands at \$12,897,410, or \$3,552,795 over and above the combined valuation of vessels owned by individuals and joint stock companies. In the subjoined summary are presented the totaled figures of number, tonnage, and value by ownership of each class of steamers and sailing vessels:

TABLE E.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE FOR EACH CLASS OF VESSELS ON THE PACIFIC COAST, GROUPED UNDER THE HEAD OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

CLASSES OF VESSELS.	Total number of vessels.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
		Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	1,353	994	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Steamers	531	252	34,114	25	3,368	254	133,021	3,147,650	324,500	12,054,305
Passenger and freight	354	179	27,140	18	2,825	157	90,526	2,417,850	246,500	9,996,405
Ferry	38	7	202	2	216	29	24,212	28,600	13,000	937,700
Fish	24	5	626	2	149	17	3,568	45,000	24,000	342,500
Harbor tugs	70	33	2,189	3	178	34	3,742	440,800	41,000	639,000
Yachts	3	2	45			1	18	4,000		2,500
No traffic report	42	26	3,912			16	1,955	211,400		136,200
Sailing vessels	822	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105
Freight	647	587	157,048	1	594	59	36,836	5,369,835	15,000	727,505
Fish	60	46	4,084	1	40	13	2,248	199,555	4,000	77,400
Pilot boats	9	8	354			1	64	39,700		10,000
Yachts	25	25	612					69,300		
No traffic report	81	76	4,493			5	1,707	175,075		28,200

Table 4 presents the figures of Table 3 grouped according to localities; that is, to each of the nine districts of the coast it allots the various classes of vessels and enters them up by number, tonnage, and value, according to ownership, and the substance of what is there presented may be adequately arrived at by those not interested in details through a study of the following summary table:

TABLE F.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE OF THE FLEET OF EACH DISTRICT ON THE PACIFIC COAST, GROUPED UNDER THE HEAD OF INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP.

CUSTOMS DISTRICTS.	Total number of vessels.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
		Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
		Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	1,353	994	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Steamers	531	252	34,114	25	3,368	254	133,021	3,147,650	324,500	12,054,305
San Diego, California	8	2	20			6	771	8,500		54,000
Wilmington, California	10	2	48			8	885	7,500		181,030
San Francisco, California	223	78	16,533	15	2,656	130	84,960	1,674,500	227,000	7,557,965
Humboldt, California	10	8	598			2	187	71,500		11,000
Southern Oregon, Oregon	15	11	485	3	173	1	113	44,100	22,500	4,000
Yaquina, Oregon	13	10	2,010			3	271	210,400		77,000
Oregon, Oregon	41	26	2,083	3	121	12	968	185,100	17,000	82,000
Willamette, Oregon	96	35	5,480	2	216	59	38,708	370,400	13,000	3,466,703
Puget sound, Washington	115	80	6,848	2	202	33	6,158	575,650	45,000	620,700
Sailing vessels	822	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105
San Diego, California	21	19	319			2	142	21,975		15,000
Wilmington, California	13	13	694					37,400		
San Francisco, California	649	601	145,766	1	594	47	12,159	5,080,300	15,000	358,800
Humboldt, California	14	14	3,272					245,500		
Southern Oregon, Oregon	1	1	90					8,000		
Oregon, Oregon	36	35	626			1	64	40,080		10,000
Willamette, Oregon	6	6	1,906					38,985		
Puget sound, Washington	82	53	13,828	1	40	28	28,490	401,225	4,000	459,306

STATISTICS OF TRANSPORTATION.

STATISTICS OF CONSTRUCTION.

Tables 5 and 6 present the same statistics, but in two methods. They correspond in the plan of their presentation with Tables 3 and 4. The first takes up each class as a group and for each of the districts on the coast enters up the number, tonnage, and value for each material of construction, whether wood, composite, or iron and steel; while in Table 6 the facts connected with materials of construction are assigned to localities. The figures of the tables show that iron and steel are not yet largely used as materials of construction on the Pacific coast, only 25 of the entire fleet of sailing vessels and steamers being so constructed, while vessels of composite construction are almost unknown. However, such vessels as are constructed of iron and steel are of unusually large tonnage. The following summary table shows how much larger is the average tonnage of vessels built of these materials than the average tonnage of vessels built of wood or composite:

TABLE G.—SUMMARY SHOWING THE AVERAGE TONNAGE AND AVERAGE VALUE PER TON OF VESSELS CONSTRUCTED OF WOOD, COMPOSITE, AND IRON AND STEEL.

CLASSES OF VESSELS.	MATERIALS OF CONSTRUCTION.					
	Wood.		Composite.		Iron and steel.	
	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.	Average tonnage.	Average value per ton.
Total	247	\$46.86	649	\$84.75	1,968	\$137.33
Steamers	240	71.85	1,089	91.83	2,009	139.34
Sailing vessels.....	252	32.22	209	47.85	997	40.12

In the subjoined summary the main facts of the relative size and value of the different classes of craft constructed of the materials under consideration are given:

TABLE H.—SUMMARY SHOWING THE TOTALS OF NUMBER, TONNAGE, AND VALUE OF EACH CLASS OF VESSELS ON THE PACIFIC COAST, WHETHER CONSTRUCTED OF WOOD, COMPOSITE, OR IRON AND STEEL.

CLASSES OF VESSELS.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.		
	Wood.		Composite.		Iron and steel.		Wood.	Com- posite.	Iron and steel.
	Num- ber.	Tonnage.	Num- ber.	Ton- nage.	Num- ber.	Tonnage.			
Total	1,326	328,076	2	1,298	25	49,209	\$15,373,960	\$110,000	\$6,758,065
Steamers	500	121,202	1	1,089	24	48,212	8,708,390	100,000	6,718,065
Passenger and freight ..	336	82,262	1	1,089	17	46,140	6,162,690	100,000	6,308,065
Ferry.....	37	24,215			1	415	939,300		40,000
Fishing.....	24	4,343					411,500		
Harbor tugs.....	66	5,540			4	569	985,800		135,000
Yachts	3	63					6,500		
No traffic report	40	4,779			2	1,088	202,600		145,000
Sailing vessels.....	820	206,874	1	209	1	997	6,665,570	10,000	40,000
Freight.....	645	193,272	1	209	1	997	6,062,340	10,000	40,000
Fish	60	6,372					280,955		
Pilot boats.....	9	418					49,700		
Yachts	25	612					69,300		
No traffic report	81	6,200					203,275		

TRAFFIC OPERATIONS.

From Table 7 it is seen that during the year of report the traffic movement of the Pacific coast fleet making returns amounted to 8,818,363 tons and 4,019,329 passengers. This traffic, it should be understood, is made up of that carried by steam or sailing vessels regularly engaged in the transportation of freight and passengers; the freight moved by towboats in freight laden lighters, scows, and other unrigged craft, together with lumber rafts, the traffic operations in this case being credited to the steamers doing the towing; that moved by unrigged craft, which was not reported on by any towing steamer, and which is therefore entered up as a separate account; the freight and passengers carried on ferryboats, with the exception of the traffic movement of the railroad ferryboats, and the freight traffic of those vessels owned by fishing concerns, but employed either to carry provisions and appliances to the men on the fishing grounds or to bring back their fish catch, and those engaged in carrying raw salmon to and bringing the canned fish from the canneries.

The ferryboats, independent of railroads, had a traffic of 14,772 tons freight and 2,639,095 passengers, these figures being included in the 8,818,363 tons freight and the 4,019,329 passengers, the traffic operations forming the base of this report. The railroad ferryboats carried 2,431,564 tons freight and 11,652,764 passengers, these figures being included in the report of "Transportation by railroads".

The railroad ferry business is not the only addition that should be made to the traffic report of the Pacific coast transportation by water. Another large set of figures is found in the freight movement of the steamers and sailing vessels registered in Atlantic ports but engaged wholly or partially in business on the Pacific coast. The steamers belonging to this class are those which form the western fleet of the Pacific Mail Steamship Company. These steamers were 10 in number, their terminals being San Francisco and Panama and San Francisco and Chinese ports, so that their freight movement distinctly belongs to the Pacific; whereas, from the fact that their home port is New York, the rules under which the census investigation was conducted required that that port should be credited with their equipment and income and expenditure. The freight and passenger movement, however, is to be credited to San Francisco, and is given in the following statement:

PACIFIC MAIL STEAMSHIP COMPANY'S FREIGHT AND PASSENGER TRAFFIC ON ITS
PACIFIC OCEAN SERVICE IN 1889.

FREIGHT.		TONS.
Through New York and through San Francisco freight via Panama.....		27,808
Outward freight from San Francisco to Mexico and Central American coast points...		20,041
Inward freight to San Francisco from coast points		39,204
Total freight, Panama line.....		87,053
Outward freight to China and Japan seas		20,709
Inward freight to San Francisco from China and Japan seas		35,701
Total freight, China line.....		56,410
Total freight, both lines.....		143,463
PASSENGERS.		NUMBER.
Outward bound passengers, both lines		5,539
Inward bound passengers, both lines.....		4,614
Total passengers, both lines.....		10,153

In connection with these figures should be mentioned \$1,550,665 of treasure carried outward from San Francisco and \$80,788 brought inward on the Panama line, and \$6,905,541 of treasure carried outward from San Francisco and \$250,000 brought to San Francisco on the China line, a total treasure movement of \$8,786,994, of which \$8,456,206 were taken out and \$330,788 were brought in.

The sailing vessels hailing from Atlantic home ports but conducting all or some portion of their operations in Pacific waters were 86 in number, distributed among Maine, Massachusetts, and New York ports as follows:

Belfast, Maine.....	1	Wiscasset, Maine.....	1	Portland, Maine.....	3
Searsport, Maine	3	Waldoboro, Maine.....	3	Boston, Massachusetts	12
Thomaston, Maine.....	5	Damariscotta, Maine	3	New Bedford, Massachusetts.....	4
Camden, Maine	3	Bath, Maine	28	New York, New York	20

These vessels did a general freighting business during 1889, and that part of it which is credited to the Pacific coast includes the freighting between domestic Pacific ports or from domestic Pacific to foreign ports; that is, it covers such operations as the carrying of wheat from San Francisco, California, to Liverpool, England, or from Portland, Oregon, to Hull, England; the carrying of lumber from Port Townsend, Washington, to Buenos Ayres, South America, or of sulphur from Yokohama, Japan, to San Francisco, California. In the conduct of this business these vessels made 686 trips, sailed over 1,240,533 miles, and carried 296,299 tons of merchandise.

In a computation conducted upon the lines laid down for this report mention should also be made of those craft trading to Pacific coast ports flying foreign flags but chartered by American concerns or individuals. The port of San Francisco presents eight examples of this kind. Two of these (steamers) sailed, respectively, under the Mexican and Hawaiian flags, and were engaged in bringing coal (some 8,000 tons) from Nanaimo, British Columbia, to San Francisco. Three other steamers formed the fleet of the Occidental and Oriental Steamship Company. They were under charter from an English company, and in 1889 carried out 25,589 tons of merchandise and \$10,218,525 of treasure and brought in 44,686 tons of merchandise and \$10,229,225 of bullion. In addition to this the Occidental and Oriental Steamship Company in 1889 carried 20,288 passengers. Two other steamers carried the Hawaiian flag and ran from San Francisco in the Australian and Sandwich islands trade, their operations standing for the movement of 34,887 tons of merchandise. The last example was a sailing vessel, and also flew the Hawaiian flag, but her operations could not be learned.

An addition to the above account of freight moved comes from an investigation into the towing business, not that of the towing of vessels in or out of harbor, but (1) the towing of barges, lighters, etc., and (2) the towing of logs and other lumber. It should be repeated here that the 314,597 tons of freight set down in Table 7 as the work of the unriggered do not stand as the total freight movement of the 489 unriggered, but only as the freight movement not reported by the steamers furnishing the motive power for these unriggered craft; and it is certain that, although a very great deal of towed freight is covered in the report of the steamers towing, the 314,597 tons of freight not so covered by no means make up the balance of freight moved in unriggered craft on the Pacific coast in 1889. There are two reasons for this:

(1) In the California ports comparatively little towing is done and the reports can be looked upon as reasonably complete; but in the northern rivers and on Puget sound the conditions are quite different. On Puget sound, for example, the commodities towed were chiefly farm produce, lumber, brick, stone, and lime. As a rule the barges and scows on which these commodities were placed are loaded by the shipper, while in very many cases these barges are owned by farmers, produce dealers, lumbermen, and those living generally along the sound. The same remarks may be applied to the barge business of the Columbia and Willamette rivers, of Shoalwater bay, and of rivers tributary or neighboring to these waterways. In order to get a certain base for an estimate a special attempt was made to secure full returns of the unriggered craft in Coos bay district. This, by the kind assistance of the collector of customs at that place, was satisfactorily accomplished, and the result is embodied in Table 7. Altogether, figuring on such estimates as these from direct but general information and from the reports of steamer captains, it would be a legitimate and proper calculation to add a freight movement of at least 700,000 tons to the unriggered business of the Pacific coast.

(2) Besides towing barges the steamboats of the northern ports were used for towing logs and rafts of lumber. Very diligent efforts were made from the outset to secure a full report of the amount of logs so towed, but it was found an impossibility, and it can be reasonably affirmed that in the schedules of Coos bay, Port Townsend, Astoria, Yaquina, Portland, and Eureka there should be 1,500,000 tons of logs, in round numbers, that do not find a place there.

DETAILS OF COMMODITIES.

An analysis of Pacific coast freight traffic can only be made of the 8,818,363 tons of freight whose movement was reported on in the census schedules. The first step in this analysis will be found in Table 8, in the form of a subdivision of this gross amount into the six following principal classes of commodities: agricultural products, coal, products of mines and quarries, lumber and other forest products, animal products including fish, manufactures and general merchandise.

The agricultural products include the yield alike of field, orchard, and garden, both at home and abroad.

The products of mines and quarries include rock, gravel (largely used in the manufacture of artificial stone pavement), ore, building stone, and salt.

Lumber and other forest products include match wood, railroad ties, piles, charcoal, and tan bark.

Animal products include live stock, wool, hides, fish, whale oil, seal skins, otter skins, dogfish oil, elk hides, elk horn, and kindred articles.

Manufactures and general merchandise include all such commodities as were returned by their carriers in the lump sum.

The Panama steamers brought as inward freight from Mexican and Central American ports to San Francisco sugar, coffee, cocoa, cochineal, limes, hides, skins, and ores; the freight taken to southern ports from San Francisco includes boilers, barbed wire and wire goods, beef and pork, car and railroad materials, canned goods, provisions, lumber, machinery, nails, live stock, silk goods, and wheat; the materials brought from China to San Francisco by the Pacific Mail Steamship Company's steamers consisted chiefly of beans, Java coffee, curios, indigo, gunny bags, hemp, jute, opium, rice, silk goods and raw silk, spices, manilla sugar, tea and tea dust, chowchow, bamboo, matting, plants and trees, rattan, tapioca, and tobacco; and the commodities carried from San Francisco to China and Japan consisted chiefly of animals, poultry, pearl barley, beans and peas, canned goods, flour, fruit and vegetables, ginseng, grain, groceries, hay, horns and hoofs, leather, lumber, machinery and castings, oil, quicksilver, shrimps and shrimp shells (sometimes running as high as 500 tons per steamer), dried fish, old junk (especially wire rope used for making nails), old glass (for glazing purposes), abalones, clocks (once a large trade), and corpses.

Omitting the 1,754,001 tons of manufactures and general merchandise, it will be seen that the largest commodity movement was in lumber and other forest products, the figures standing at 4,239,656 tons. Next come agricultural products, 1,152,100 tons, closely followed by coal, 1,075,600 tons. The last item, with the exception of animal products, fish, etc., which has already been referred to, is mines and quarries, the products of these amounting to 522,497 tons. Of these totals, the steamers moved 851,041 tons of agricultural products, 407,635 tons of coal, 305,551 tons of the products of mines and quarries, 3,023,547 tons of lumber and other forest products, 30,706 tons of animal products, and 1,123,460 tons of manufactures and general merchandise. Sailing vessels carried 262,559 tons of agricultural products, 627,995 tons of coal, 214,946 tons of the products of mines and quarries, 1,154,325 tons of lumber and other forest products, 43,803 tons of animal products, and 458,198 tons of manufactures and general merchandise. On the unriggered craft there was carried, over and above that reported by the steamers furnishing the motive power, 38,500 tons of agricultural products, 39,970 tons of coal, 2,000 tons of the products of mines and quarries, 61,784 tons of lumber and other forest products, and 172,343 tons of manufactures and general merchandise.

INTERDISTRICT TRAFFIC.

The figures of Table 8 are valuable only as showing the amount of freight moved by the fleets belonging to each of the customs districts and must not be taken as showing the traffic of any one port. It was to arrive at this result that the scheme of interdistrict movement, described on page 12, has been formulated and carried out. This is shown in detail in Tables 9 and 10. In these tables the 8,818,363 tons of freight, whose components were shown in Table 8, still form the total, and the entries show whither this freight was carried, whence it was brought, and how many miles were covered in its distribution. The entries were made so as to show the traffic movement of steamers with their unriggered consorts, of sailing vessels, and of the combined fleet for each district, while the same classification of commodities obtains in Table 9 that was observed in Table 8. The entries show that in nearly every case the vessels of each district traveled far in the disposition of their freight. It will be seen in the entries for the San Francisco fleet, for instance, that some of the vessels of that district carried 1,651 tons of coal and 896 tons of other products from points in Puget sound to other points in Puget sound, and that they traveled 724 miles in so doing; that other San Francisco vessels carried 61,764 tons of lumber from Puget sound to foreign ports and covered 228,285 miles in the traffic; that other San Francisco vessels traveled between ports on the Oregon coast and ports on the southern California coast, carrying 6,576 tons of lumber and 220 tons of agricultural products, the distance of their voyages being 29,188 miles; that others sailed between southern California coast points and points in Alaska and the Bering sea, carrying 638 tons of general merchandise, and sailing 2,400 miles; and that others traded between foreign ports and foreign ports, carrying 24,916 tons of coal, 12,612 tons of lumber, 230 tons of animal products and fish, and 900 tons of other merchandise, and traveled 166,363 miles in this trade.

By internal traffic is meant the freight movement within the six coast districts, that is, from point to point in the districts embracing (1) southern California coast, (2) San Francisco bay and tributary rivers, (3) northern California coast, (4) Oregon coast, (5) Columbia and Willamette rivers, and (6) Puget sound and the sea coast of Washington.

By coastwise traffic is meant the freight movement between the points of any two of the coast districts described above.

By Atlantic traffic is meant the freight movement between United States Pacific and Atlantic coast points.

By foreign traffic is meant the freight movement between foreign ports and any other port, including trade between foreign port and foreign port.

By Alaska and Bering sea traffic is meant the freight movement between points on the Alaskan coast or Bering sea and any of the six coast districts.

The proposed segregation of freight movement under these heads is given in the following summary:

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, GROUPED UNDER THE HEADS OF INTERNAL, COASTWISE, ATLANTIC, FOREIGN, AND ALASKA AND BERING SEA TRADE.

INTERNAL TRAFFIC.

WITHIN THE—	NUMBER.	
	Tons.	Miles.
Total	5, 034, 151	5, 733, 186
1 Southern California coast district.....	183, 594	75, 782
2 San Francisco bay and rivers district	2, 043, 051	2, 526, 889
3 Northern California coast district.....	174, 536	41, 957
4 Oregon coast district	206, 742	133, 374
5 Columbia and Willamette rivers district	590, 405	1, 207, 394
6 Puget sound and Washington district	2, 435, 823	1, 747, 790

STATISTICS OF TRANSPORTATION.

TABLE I.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, ETC.—Continued.

COASTWISE TRAFFIC.

FROM—	TO—	Tons.	Miles.
Total coastwise traffic		2,372,825	3,153,432
Total		163,442	230,792
1 Southern California coast	2 San Francisco bay and rivers	161,308	134,485
1 Southern California coast	4 Oregon coast	27	17,305
1 Southern California coast	5 Columbia and Willamette rivers	1,042	19,632
1 Southern California coast	6 Puget sound and Washington	165	59,370
Total		483,825	1,234,290
2 San Francisco bay and rivers	1 Southern California coast	320,967	134,485
2 San Francisco bay and rivers	3 Northern California coast	39,883	328,366
2 San Francisco bay and rivers	4 Oregon coast	44,632	169,264
2 San Francisco bay and rivers	5 Columbia and Willamette rivers	14,293	38,933
2 San Francisco bay and rivers	6 Puget sound and Washington	64,050	563,242
Total		623,417	544,433
3 Northern California coast	1 Southern California coast	98,783	211,574
3 Northern California coast	2 San Francisco bay and rivers	522,434	328,797
3 Northern California coast	5 Columbia and Willamette rivers	1,260	2,080
3 Northern California coast	6 Puget sound and Washington	940	1,982
Total		209,845	238,302
4 Oregon coast	1 Southern California coast	17,276	52,539
4 Oregon coast	2 San Francisco bay and rivers	191,255	172,293
4 Oregon coast	5 Columbia and Willamette rivers	1,102	4,422
4 Oregon coast	6 Puget sound and Washington	212	9,048
Total		68,364	216,487
5 Columbia and Willamette rivers	1 Southern California coast	11,418	20,647
5 Columbia and Willamette rivers	2 San Francisco bay and rivers	42,720	155,065
5 Columbia and Willamette rivers	3 Northern California coast	2,445	1,094
5 Columbia and Willamette rivers	4 Oregon coast	4,085	16,722
5 Columbia and Willamette rivers	6 Puget sound and Washington	7,696	22,290
Total		823,932	688,948
6 Puget sound and Washington	1 Southern California coast	47,595	87,290
6 Puget sound and Washington	2 San Francisco bay and rivers	773,484	563,241
6 Puget sound and Washington	3 Northern California coast	321	2,630
6 Puget sound and Washington	4 Oregon coast	400	9,048
6 Puget sound and Washington	5 Columbia and Willamette rivers	2,132	26,739

ATLANTIC TRAFFIC.

Total		5,550	30,250
2 San Francisco bay and rivers	8 Atlantic ports	(a)	13,250
8 Atlantic ports	2 San Francisco bay and rivers	5,550	17,000

FOREIGN TRAFFIC.

Total foreign traffic		707,085	2,811,896
Total		278,997	1,392,720
1 Southern California coast	7 Foreign ports	4,720	62,374
2 San Francisco bay and rivers	7 Foreign ports	138,043	785,596
3 Northern California coast	7 Foreign ports	12,789	74,573
4 Oregon coast	7 Foreign ports	1,160	9,185
5 Columbia and Willamette rivers	7 Foreign ports	3,286	23,782
6 Puget sound and Washington	7 Foreign ports	115,238	418,305
8 Atlantic ports	7 Foreign ports	8,560	16,155
9 Alaska and Bering sea	7 Foreign ports	201	2,750

a Ballast.

TABLE II.—SUMMARY SHOWING THE AMOUNT OF FREIGHT CARRIED AND MILES TRAVELED IN THE INTERDISTRICT TRAFFIC OF THE PACIFIC COAST, ETC.—Continued.

FOREIGN TRAFFIC—Continued.

FROM—	TO—	Tons.	Miles.
Total		389,310	1,250,287
7 Foreign	1 Southern California coast	39,594	82,211
7 Foreign	2 San Francisco bay and rivers	319,880	762,505
7 Foreign	5 Columbia and Willamette rivers	5,448	30,873
7 Foreign	6 Puget sound and Washington	18,718	328,111
7 Foreign	8 Atlantic ports	3,136	16,155
7 Foreign	9 Alaska and Bering sea	2,534	10,432
7 Wholly foreign		38,778	168,889

ALASKA AND BERING SEA TRAFFIC.

Total Bering sea traffic		98,752	544,751
Total		50,795	288,589
1 Southern California coast	9 Bering sea	638	2,400
2 San Francisco bay and rivers	9 Bering sea	49,357	234,830
5 Columbia and Willamette rivers	9 Bering sea	(a)	25,900
6 Puget sound and Washington	9 Bering sea	800	25,459
Total		47,774	245,546
9 Bering sea	2 San Francisco bay and rivers	45,946	234,831
9 Bering sea	6 Puget sound and Washington	1,828	10,715
9 Bering sea	9 Bering sea	183	10,616

a Ballast.

From the preceding summary it will be seen that the whole internal traffic amounted to the movement of 5,634,151 tons, and that while the internal trade of the San Francisco bay and rivers amounted to 2,043,051 tons, that of Puget sound district was even greater, amounting to 2,435,823 tons.

In considering the coastwise trade it will be seen that from points on the southern California coast to all other points on the Pacific coast there were sent out 163,442 tons; from points on the San Francisco bay and rivers, 483,825 tons; from the northern California coast, 623,417 tons; from the Oregon coast, 209,845 tons; from the Columbia and Willamette rivers, 68,364 tons, and from Puget sound, 823,932 tons, making a total of 2,372,825 tons of freight. This shows that the district from which the greatest coastwise trade emanated was No. 6, Puget sound and Washington. The explanation of this is found in the 773,484 tons of freight brought from Puget sound to San Francisco made up of 40,909 tons of coal and 167,850 tons of lumber. The next largest coastwise trade is that emanating from district No. 3, northern California coast, the bulk of this being 522,434 tons of freight, mostly lumber, brought to San Francisco.

The trade between Pacific coast ports and Atlantic ports was confined on the Pacific side to San Francisco, and even in this case the business done in American vessels registered in San Francisco was only one of imports, the 5,550 tons of freight received being general merchandise.

The foreign trade amounted to 707,085 tons, made up of 278,997 tons of exports, 389,310 tons of imports, and 38,778 tons of wholly foreign movement. As might naturally be expected from its importance, San Francisco stands first in the figures of exports and imports, these being respectively 138,043 and 319,880 tons. Puget sound stands next in importance as an exporter, the figures being 115,238 tons, although its imports fall to 18,718 tons. In the case of San Francisco, the exports are made up of coal, lumber, agricultural products, and general merchandise, while in the case of Puget sound they are comprised almost entirely of coal and lumber.

The Alaska and Bering sea trade is almost equally divided between exports and imports, the first being 50,795 tons, and the second 47,774 tons. With the exception of 638 tons of general merchandise taken by San Francisco vessels plying from southern California ports, and 800 tons of lumber taken in San Francisco vessels from Puget sound, all the trade to Alaska and Bering sea was conducted by San Francisco vessels plying from San Francisco. The trade from Alaska and Bering sea was mostly with San Francisco, the two great commodities being coal and animal products including fish.

MILEAGE.

The relation of the mileage of this traffic to the freight movement is very distinctly shown in the accompanying summary giving the freight moved, distance covered, and average distance of movement per ton of each class of traffic. The distance covered in the movement of the 5,634,151 tons of freight constituting the internal traffic was 5,733,186 miles, or an average movement per ton of 1.02 miles. The distance traveled in the coastwise traffic movement was 3,153,432 miles and the freight moved 2,372,825 tons, this giving an average movement per ton of 1.33 miles. The distance covered in the foreign freight traffic was 2,811,896 miles, or an average movement per ton of 3.98 miles. The average distance in the Atlantic business was even greater, being 5.45 miles, but this large average is due to the fact that of the 30,250 miles traveled, 13,250 miles were in ballast. The Alaska and Bering sea average movement per ton was the highest of all, being 5.52 miles, and this was partly due to the fact that of the 544,751 miles traveled, 25,900 were in ballast, and partly to the other fact that while the cruises in the Bering sea are exceedingly long the freight is much smaller than that of vessels engaged in usual lines of commerce.

TABLE J.—SUMMARY SHOWING THE FREIGHT MOVED, DISTANCE COVERED, AND AVERAGE DISTANCE OF EACH TON OF FREIGHT MOVED IN THE FIVE DIVISIONS OF TRAFFIC MOVEMENT BY ALL OPERATING CRAFT.

TRAFFIC MOVEMENT.	Freight moved. (Tons.)	Distance covered. (Miles.)	Average movement per ton. (Miles.)
Total	8,818,363	12,273,515	1.39
Internal	5,634,151	5,733,186	1.02
Coastwise	2,372,825	3,153,432	1.33
Foreign	707,085	2,811,896	3.98
Atlantic	5,550	30,250	5.45
Bering sea	98,752	544,751	5.52

EARNINGS AND EXPENSES.

In Table 11 the figures are given which show how the business of transportation by water paid during the year ended December 31, 1889, for all operating craft over 5 tons burden. These figures are furnished under the headings of gross earnings, expenses, and net earnings, and are given for the steamers and unrigged craft and for sailing vessels allotted to their customs districts. The figures in the first part of the table indicate that the gross earnings of the whole operating fleet amounted to \$20,628,316.28, the expenses to \$17,274,809.30, leaving the net earnings at \$3,353,506.98. The largest figures of this total are for the district of San Francisco, the gross earnings of its operating fleet standing at \$14,191,341.93, with expenses of \$11,701,926.71 and net earnings at \$2,489,415.22. The next largest account is that of the Willamette or Portland district, its fleet earning \$3,439,199.57, paying out \$3,088,220.32, and making as net earnings \$350,979.25. The net earnings of the Puget sound or Port Townsend district fleet were much larger, the figures being \$411,862.61, which is larger than the net earnings of the fleet registered in all the districts of Oregon, this sum being a profit on the gross earnings of \$2,214,731.23, after paying out \$1,802,868.62 for expenses. The other districts placed in the order of their importance as judged from the financial account stand as Oregon, Humboldt, Yaquina, Wilmington, southern district of Oregon, and San Diego.

Of the totals of the combined fleets the gross earnings of the operating steamers and unrigged craft amounted to \$13,237,222.29, the expenses to \$11,446,692.77, and the net earnings to \$1,790,529.52. San Francisco maintains its importance in the returns of the steamers' accounts just as it did in the returns of the entire fleet, the gross earnings being \$8,015,094.94, the expenses \$6,872,414.76, and the net earnings \$1,142,680.18. The Willamette district also retains its relative importance, the gross earnings being \$3,383,404.26, the expenses \$3,050,676.43, and the net earnings \$332,727.83. Puget sound again comes third, the gross earnings of its steam and unrigged fleet being \$1,241,116.20, the expenses \$988,892.50, and its net earnings \$252,223.70. The steamers of the Oregon or Astoria district and the southern Oregon or Coos bay district made a presentable showing of net earnings, these being \$45,229.11 on gross earnings of \$212,478.11 for Oregon and \$14,093.97 on \$56,499.33 for southern Oregon. The steamers of Wilmington and Humboldt or Eureka districts make a poor showing. Of \$64,406.14 of gross earnings the expenses of running the Wilmington steamers amounted to \$63,576.84, leaving net earnings of only \$829.30; and while the gross earnings of the Humboldt steamers amounted to \$102,488.21, the expenses amounted to \$87,232.30, leaving net earnings of only \$15,255.91. The steamers of the San Diego and Yaquina districts ran even less profitably, the account of San Diego showing gross earnings of \$42,507.47, with expenses of \$45,985.04, leaving a deficit of \$3,477.57; and the account of Yaquina showing earnings amounting to \$119,227.63, expenses to \$128,260.54, leaving a deficit of \$9,032.91.

In the financial account of the sailing vessels a steady rate of profit is maintained. The gross earnings were \$7,391,093.99, the expenses \$5,828,116.53, leaving net earnings of \$1,562,977.46, or but very little less than the

net earnings in the \$13,237,222.29 gross earnings of the steamers. The figures of the different districts need not be quoted, except in the cases of Willamette and Puget sound. In the returns of the steamer fleet Willamette easily led, but in the figures of the sailing fleet the positions are reversed. The gross earnings of the Puget sound sailing vessels were \$973,615.03, while those of Willamette were but \$55,795.31, and the net earnings of Puget sound sailing vessels were \$159,638.91, while those of the Willamette sailing vessels were but \$18,251.42.

The classes or occupations for which the account of earnings and expenses has been made up are passenger and freight vessels, ferryboats, fishing vessels, harbor tugs, and pilot boats. Their financial account is given in detail in Tables 16 to 23, inclusive, entitled "General operations by classes". The earnings and expenses of the five classes will be found in the accompanying summary. The gross earnings and the expenses of pilot boats are equal, since the pilots do not report their professional earnings. The boats are used simply to carry the pilots to vessels and the earnings of the boats as such are the expenses of maintaining crew and equipment. The gain or loss is that of pilotage, not that of running the boats.

TABLE K.—SUMMARY SHOWING THE TOTAL EARNINGS AND EXPENSES OF THE OPERATING FLEET OF THE PACIFIC COAST.

CLASSES OF OCCUPATIONS.	Gross earnings.	Expenses.	Net earnings.
Total	\$20,628,316.28	\$17,274,809.30	\$3,353,506.98
Passenger and freight	18,112,955.63	14,898,141.32	3,214,814.31
Ferryboats	994,475.95	964,904.32	29,571.63
Fishing vessels	719,872.25	697,836.45	22,035.80
Harbor tugs	765,305.72	678,220.48	87,085.24
Pilot boats	35,706.73	35,706.73	.....

In Table 12 the \$14,898,141.32 of expenses which were reported for the 1,001 vessels engaged in traffic operations exclusive of ferryboats are reduced to the principal items making up the sum. These items are port charges, wages, provisions, current repairs, fuel (for the steamers), commissions, insurance, taxes, and office expenses, together with two entries for what other running and shore expenses may not have been included in the list of items just quoted. These items of expenses are distributed among the steamers and sailing vessels for each district of registration with totals for the states and coast. The expenses of the unriggered craft are included in the accounts of the steamers. By far the largest item of expenses was that of wages, the figures being \$5,212,639.20, of which amount \$2,924,205.19 were paid on board the steamers and \$2,288,434.01 on board the sailing vessels. Of the total wages San Francisco paid \$1,655,683.25 to steamer hands and \$1,904,194.72 to the crews of the sailing vessels, while the Willamette or Portland shipowners paid out \$694,578.16 to the officers and men of the combined fleet, Puget sound's wage list for the steamers and sailing vessels being \$683,069.31.

The next largest item of expense was that of fuel, the cost of which amounted to \$2,094,523.42. Provisions cost \$1,507,183.73, of which \$832,191.57 were expended on steamers, and \$674,992.16 on sailing vessels; current repairs cost \$1,098,232.29, the steamers' portion of that expense being \$613,703.33 and the sailing vessels' part being \$484,528.96. The cost of insuring the steamers was \$384,795.87 and the sailing vessels \$158,142.14. Port charges of the coast freighting fleet amounted to \$292,085.09, commissions to \$175,080.30, and taxes to \$125,655.76.

EMPLOYÉS AND WAGES.

Table 13 treats in detail of the monthly wages of all classes of employés on vessels engaged in the transportation of passengers and freight on the Pacific coast in the year 1889, exclusive of ferryboats. Of these employés the steamer list (which contains the account of the crews of the unriggered craft) includes captains, first mates, second mates, third mates, boatswains, clerks, pursers, surgeons, first engineers, second engineers, third engineers, firemen, coal passers, wheelmen, pilots, lookouts, watchmen, cooks, bakers, cooks' assistants, pantrymen, butchers, seamen, deck hands, porters, oilers, water tenders, stewards, storekeepers, waiters, boys, chambermaids, stewardesses, and carpenters; while the sailing vessel list includes captains, first mates, second mates, clerks, wheelmen, pilots, lookouts, watchmen, cooks, cooks' assistants, seamen, stewards, boys, and carpenters. The number of each class of employés for steamers and sailing vessels is given by districts for the coast and in a comprehensive total. From this latter have been worked out the accompanying summaries which show the aggregate and average monthly payments made to each class.

STATISTICS OF TRANSPORTATION.

TABLE L.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ONE MONTH OF THE YEAR 1889, EXCLUSIVE OF FERRYBOATS.

EMPLOYÉS.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	10,396	\$521,502.86	\$50.16
Captains	1,001	95,175.97	95.08
First mates	685	39,573.77	57.77
Second mates, third mates, and boatswains	432	20,756.16	48.05
Clerks and pursers	189	12,652.50	66.94
Surgeons	2	110.00	55.00
First engineers	353	35,798.54	101.41
Second and third engineers	251	18,650.00	74.30
Firemen and coal passers	657	29,847.26	45.43
Wheelmen and pilots	134	9,509.17	70.96
Lookouts	24	1,039.50	43.31
Watchmen	160	6,702.73	41.89
Cooks and bakers	726	35,339.45	48.68
Cooks' assistants, pantrymen, and butchers	393	10,952.28	27.87
Seamen	3,331	127,817.33	38.37
Deck hands and porters	939	38,344.25	40.84
Oilers and water tenders	172	8,053.37	46.82
Stewards and storekeepers	192	9,440.00	49.17
Waiters	455	11,012.58	25.52
Boys	163	3,858.00	23.67
Chambermaids and stewardesses	18	445.00	24.72
Carpenters	119	5,825.00	48.95

TABLE M.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL STEAMERS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ONE MONTH OF THE YEAR 1889, EXCLUSIVE OF FERRYBOATS.

EMPLOYÉS.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	5,825	\$311,545.22	\$53.48
Captains	354	41,271.46	116.59
First mates	286	18,783.87	65.68
Second mates, third mates, and boatswains	138	7,556.16	54.75
Clerks and pursers	188	12,552.50	66.77
Surgeons	2	110.00	55.00
First engineers	353	35,798.54	101.41
Second and third engineers	251	18,650.00	74.30
Firemen and coal passers	657	29,847.26	45.43
Wheelmen and pilots	128	9,204.17	71.91
Lookouts	19	844.50	44.45
Watchmen	153	6,407.73	41.88
Cooks and bakers	296	14,544.45	49.14
Cooks' assistants, pantrymen, and butchers	267	8,372.28	31.36
Seamen	800	35,090.10	43.86
Deck hands and porters	939	38,344.25	40.84
Oilers and water tenders	172	8,053.37	46.82
Stewards and storekeepers	177	8,870.00	50.11
Waiters	455	11,012.58	25.52
Boys	140	3,517.00	25.12
Chambermaids and stewardesses	18	445.00	24.72
Carpenters	32	1,670.00	52.19

TABLE N.—SUMMARY SHOWING THE AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL SAILING VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST FOR ONE MONTH OF THE YEAR 1889.

EMPLOYÉS.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	4,571	\$209,957.64	\$45.98
Captains	647	53,904.51	83.31
First mates	399	20,789.90	52.11
Second mates, third mates, and boatswains	294	13,200.00	44.90
Clerks	1	100.00	100.00
Wheelmen and pilots	6	305.00	50.83
Lookouts	5	195.00	39.00
Watchmen	7	295.00	42.14
Cooks	430	20,795.00	48.36
Cooks' assistants	126	2,580.00	20.48
Seamen	2,531	92,727.23	36.64
Stewards	15	570.00	38.00
Boys	23	341.00	14.83
Carpenters	87	4,155.00	47.76

AVERAGES AND AGGREGATE WAGES.

So far the subject of employés, their number and wages, has only been considered in connection with the freight and passenger carrying vessels, exclusive of ferryboats, and for an illustrative month. In the eight tables numbered from 16 to 23, inclusive, treating of the general operations by classes, not only are the details of equipment and traffic operations given of all the different classes of vessels, but there is also given for each class such details of wages and employés as the number of common seamen employed in each district and state, the average wages paid to common seamen, the number of men of all grades making up the ordinary crews, the total number of men employed, and the total amount of money paid out as wages to officers and crews during the year. Gathering the facts presented in these tables, they are shown in the following summary:

TABLE O.—SUMMARY SHOWING TOTAL AND AVERAGE WAGES PAID ORDINARY CREWS AND TOTAL NUMBER OF MEN EMPLOYED ON ALL OPERATED VESSELS, OF EVERY CLASS OF OCCUPATION, ON THE PACIFIC COAST DURING THE YEAR 1889.

CLASSES OF OCCUPATIONS.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed at different times.	Total wages paid during year.
Total	4,302	\$38.36	12,181	33,656	\$6,127,450.69
Passenger and freight	3,331	38.37	10,396	30,332	5,212,639.20
Ferryboats	126	59.00	478	1,150	395,157.00
Fishing vessels	790	34.97	866	1,485	247,028.56
Harbor tugs	25	42.59	374	573	247,630.49
Pilot boats	14	33.77	31	71	16,310.00
Yachts and pleasure boats	16	36.68	36	45	8,685.44

In connection with the preceding summary two or three items are to be noted. In the first place, the "number of men employed" does not stand for the number of men who received a year's employment during 1889, but indicates the number of men to whom whole or partial employment was given during that year; that is, supposing the ordinary crew of a vessel was 6 men, and 14 men were shipped during the year, then the 14 men are set down as having found employment. In the column entitled "ordinary crews" there is given the total number of men required to work and officer the 1,230 operating vessels (exclusive of unrigged, as their crews are included in those of the operating vessels) reported on for the different ports. In the next place, the entries in the column of "wages paid" represent the total wages paid during the year at the average rate of wages to the officers and men making up the ordinary crews for such time as they were employed; that is, supposing the vessel's ordinary crew included 16 seamen and the wages paid by the owner of that vessel was \$20 a month per man and the men were employed 10 months, then the amount set down would be \$3,200.

In a great number of cases the captain or owner made the return that the vessels were run on shares, and that consequently he could not give any account of wages paid. In such cases it was insisted that the captain or owner should reckon as "wages paid" the amount which he would have had to pay to captains

or men had such been employed, and then to enter that amount up for the number of days during which the vessel was in service. The same plan was adopted in the case of the numerous San Francisco bay schooners, where the captain and deck hands were paid out of what is called the "stock"; that is, the gross earnings of the vessel, or where the fashion of the "lay" is followed, or when the captain was paid a percentage of earnings; so that by thus obtaining a uniform style of report the \$6,127,450.69 can be accepted as the amount actually paid out or which would have been paid to the persons making up the crew list of the 1,230 vessels reported on, figuring on the basis of the average rate of wages paid in Pacific coast ports.

NATIONALITY OF EMPLOYÉS.

The endeavor to secure a report on the nationality of the employés was only partially successful. No data are at hand from which to say whether the number of native born citizens of the United States who follow the sea is increasing or not on the Pacific coast, but the opinion of a few intelligent shipowners who were approached on the subject was that such a tendency did exist. The returns themselves show, at any rate, that with very few exceptions the masters of American vessels of large burden were American born. The great bulk of the "ordinary seamen" hailed from the Baltic districts and the north of Europe, which to the ship's master was known as Scandinavia, and whether a man was a Finn or a Hollander he was classed as a Scandinavian. Of those returned as coming from Great Britain and Ireland the majority were Welsh or Irish. The number of Chinese sailors was never large on the Pacific coast, and the 286 reported were either crews of foreign going steamers or cooks of big vessels. The term "other countries" is an all-embracing one, as may be gathered from the returns of two sample vessels. One, a lumber vessel, carried a crew of 18, including men and officers, although 78 were taken into partial employment during the year, and of this latter number Scotland furnished 1, the United States 19, Germany 1, England 1, Russia and Finland 16, Italy 2, China 6, Portugal 2, Norway 15, Sweden 15; while the second, a whaler, had a crew consisting of Americans, English, Greeks, Mexicans, Scandinavians, Indians, and Portuguese. Such information as could be secured on this subject is set down in the following summary:

TABLE P.—SUMMARY SHOWING THE PRINCIPAL NATIONALITIES OF OFFICERS AND MEN EMPLOYED ON OPERATING VESSELS REGISTERED IN PACIFIC COAST PORTS IN THE YEAR 1889.

DISTRICTS.	STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT.					
	Total number of men employed at different times.	United States.	Scandinavia.	Great Britain and Ireland.	China.	Other countries.
Total for coast.....	33,656	5,074	12,309	1,163	286	14,824
California.....	25,139	2,199	10,167	575	60	12,138
San Diego	106	60	28	1		17
Wilmington	167	63	30	27	2	36
San Francisco	24,545	2,020	10,019	524	58	11,915
Humboldt	321	47	81	23		170
Oregon	4,497	1,181	631	288	144	2,253
Southern Oregon	76	50	15	4	1	6
Yaquina	318	68	22	2	12	214
Oregon	604	277	54	16	6	251
Willamette	3,499	786	540	266	125	1,782
Washington Puget sound.....	4,020	1,094	1,511	300	82	433

FUEL ACCOUNT.

An itemization has been made of the fuel account in Table 15, wherein are set down the amounts of coal and wood burned by the passenger and freight steamers, ferryboats, harbor tugs, and steam yachts during the operating year of 1889, together with the cost of the fuel. From this table it will be seen that the total cost of the fuel was \$2,467,882.17. Of this sum the coal, which amounted to 371,977 tons, cost \$2,117,032.65; while the wood, of which 163,669 cords were burned, cost \$350,849.52, making the average price of the coal \$5.69 per ton and the average price of wood \$2.14 per cord. The summary on the following page gives the quantities of fuel consumed.

TABLE Q.—SUMMARY SHOWING THE QUANTITIES OF COAL AND WOOD BURNED BY PASSENGER AND FREIGHT STEAMERS, FERRYBOATS, HARBOR TUGS, AND STEAM YACHTS REGISTERED IN PACIFIC COAST PORTS FOR THE YEAR 1889.

DISTRICTS.	Coal. (Tons.)	Wood. (Cords.)
Total for coast	371,977	163,669
California	291,980	14,299
San Diego	1,842	
Wilmington	1,878	2
San Francisco	286,625	10,955
Humboldt	1,635	3,342
Oregon	54,743	95,643
Southern Oregon	3	3,496
Yaquina	2,945	2,550
Oregon	79	14,806
Willamette	51,716	74,692
Washington, Puget sound	25,254	53,727

GENERAL OPERATIONS.

In the eight tables, 16 to 23, inclusive, the important figures given in the various presentations of equipment, traffic, and financial data are segregated and given for each class of vessel according to its occupation. These tables are drawn out as nearly as possible on a uniform plan. One or two entries, however, need explanation, even at the risk of some slight repetition.

Table 16, for instance, classes as freighters those vessels actually carrying freight, all towboats engaged in moving freight, and those craft owned by fishing concerns but used as freighters. The freight movement given under the head of unrigged in this table is that which was not reported on by any towing steamer, and is therefore entered up as a separate account.

The figures in Table 17, giving the freight and passenger traffic and the earnings and expenses of railroad ferryboats, were needed to make the report on the ferry industry a complete one.

Those vessels which were engaged in fishing, sealing, whaling, etc., but which only incidentally carried freight and whose earnings were from the sale of the catch, are the "fishing vessels", which are reported on separately in Table 18.

The harbor tugs reported on in Table 19 are those employed in the towing of vessels already reported on, and in all general harbor operations (except that of regularly towing barges and lumber), while the floating channel property referred to consists of dredgers, pile drivers, water boats, etc.

The yachts and pleasure boats given in Table 21 are, it should be remembered, those of over 5 tons burden, this minimum of tonnage excluding the small pleasure boats.

The number of vessels engaged in all of the occupations shown in Tables 16, 17, 18, 19, 20, and 21 does not, however, make up the total of those given in Table 1, "Equipment of fleets, all craft", although their income, expenditures, and traffic operations would make up the total of the returns given in Table 7, "Traffic in general", and Table 11, "Financial account in general". The difference in the equipment account is made up in Table 22, entitled "No traffic report". In this are given the number, tonnage, and value of all such craft as had no traffic report either because of being out of commission, from having been lost prior to or during 1889, because of being sold to foreign owners or being untraceable.

COMPARATIVE STATISTICS.

In considering the comparative statistics embraced in Tables 24 to 37, inclusive, it must be remembered that the figures are derived from two sources, according to the material at hand. The first five tables are made up from the data given in the transportation volume of the Tenth Census compared with such totals drawn from the report of the present census as could be comparatively presented. It may be repeated that the only branch of transportation on the Pacific coast fully reported on at the Tenth Census was that conducted by steamers, so that the tabulation of comparative census figures is necessarily restricted to the operations of this class of craft, though the number and tonnage of sailing vessels and unrigged craft were given.

The following summary was in the report on transportation for the Tenth Census:

PACIFIC COAST IN 1880.

There were 319 steamers owned on the Pacific coast in 1880. Of these steamers 178 were owned in California, 89 in Oregon, and 52 in Washington territory.

They measured 97,004.88 tons, and were valued at \$6,477,500, averaging 304.09 tons apiece, with an average value of \$20,306.

The capital invested in these steamers, exclusive of dock property, was \$8,854,490, and they gave employment to 3,008 men.

Gross earnings here were \$6,362,770, or 71.9 per cent on the capital invested. Excepting in the case of a few of the large and well established lines, money was lost in the competition with the railroads, and there has been a gradual withdrawal of lines for several years past in consequence of this competition. The amount paid for services here was \$1,953,451, or an average of \$649.41 per annum for each employé. The passenger movement was 6,604,712, of which 300,752 were regular passengers and 6,303,960 were ferry passengers. The freight movement was reported at 2,087,293 tons, of which 249,583 tons were carried by ocean steamers, 838,019 tons by inland passenger steamers, 240,238 tons by freight steamers, and 759,393 tons by ferry steamers.

The fuel consumed in this group, amounting to 146,407 tons of coal and 103,446 cords of wood, shows an average of 1.50 tons of coal to the ton of measurement and 1.06 cords of wood.

Table 24 shows that in 1880 the Pacific coast fleet of steamers and unrigged craft numbered 534, with a tonnage of 125,090 and a value of \$6,620,980, and that in 1889 the coast fleet of steamers and unrigged craft numbered 1,020, had a tonnage of 233,859 and a value of \$16,351,800, an increase of 486 in number, 108,769 tons in tonnage, and \$9,730,820 in value. This increase, it will be seen, is quite as much in the steamers as it is in the unrigged craft, and is about equally distributed between the fleets of California, Oregon, and Washington. The classification of the steamer fleets for both years has been made in Table 25 by passenger and freight carrying boats, ferryboats, towing and harbor tugs, and miscellaneous craft, and from this classification it is seen that the passenger and freight carrying craft in 1880 numbered 224, with a tonnage of 70,392 and a value of \$4,414,900, while in 1889 the freighters numbered 354, had a tonnage of 129,490 and a value of \$12,660,755, an increase of 130 in number, 59,098 in tonnage, and \$8,245,855 in value.

EARNINGS AND WAGES, 1880 AND 1889.

The financial account of the steamers in 1880 was limited to the gross earnings and wages, and only these are given for both years in Table 26, and because the returns in 1880 were made only for states, while in 1889 they were made for districts, the comparison by localities is limited to states. All that can be shown, therefore, is that in 1880 the gross earnings on all the reporting steamers of the Pacific coast amounted to \$6,362,770, while in 1889 they had risen to \$13,237,222, a gross increase of \$6,874,452 and an average annual increase of \$763,828. The amount paid out in wages on steamers in the years under consideration is given in Table 26, because it is the only item of expense that can be compared, but a better consideration of it can be had from a study of Table 27. Here again, as in all other tables dealing with employés, the entry entitled "Total number of men making up the ordinary crews", is to be accepted as indicating the total number of men required to work all the reporting steamers and not the total number of men employed during the year. The number of men making up the complement of the steamer crews in 1880 was 3,008, while in 1889 the number was 6,818. To these there was paid out as wages during 1880 \$1,953,451, while in 1889 the total wages paid amounted to \$3,682,062. The average annual wages per man in 1880 was \$649.42 and \$540.05 in 1889, an average annual decrease of \$109.37. It may be added that the average annual decrease for the states making up this average annual decrease for the coast was \$22.35 in California, \$275.85 in Oregon, and \$240.94 in Washington.

FREIGHT AND PASSENGER TRAFFIC, 1880 AND 1889.

The same remarkable increase that was seen in the number, tonnage, and value of the steamers of 1889 over those of 1880 is shown in the increase of freight and passenger traffic. In 1880 the freight moved on the steamers was 2,087,293 tons, while in 1889 it was 8,173,504 tons, an increase of 6,086,211 tons, or 292 per cent. It will be observed that in the freight movement of California the railroad ferry freight is also included in the 1889 figures, and this is done because the ferry figures were also included in the 1880 report. The passenger traffic in 1880 amounted to 6,604,712, while in 1889 there were 15,672,093 passengers.

FLEETS, 1880 AND 1889.

The comparative statistics found in Table 29 and the ten following tables have been gathered from the reports of the Bureau of Navigation. Table 29 gives the number and tonnage of the steamers, sailing vessels, and barges registered in each district of the Pacific coast for each year of the decade, the coast total for each year being given in a tabulated recapitulation. In this recapitulation it is shown that there has been a gradual but steady increase in the registered fleet of the coast during the ten years in question. In 1880, for instance, the registered sailing vessels numbered 752; in 1883 there were 812; in 1886 there were 829, and in 1889 there were 841. The tonnage of

the registered sailing vessels in 1880 was 148,400; in 1882 it was 167,351; in 1887 it was 189,702, and in 1889 it was 248,430. In 1880 the registered steamers numbered 305 with a tonnage of 110,415; in 1884 the registered steamers numbered 384 with a tonnage of 146,562; in 1887, 426 steamers were registered with a tonnage of 160,140; and in 1889, 517 steamers were registered with a tonnage of 180,496. On the other hand, the registered barge fleet shows a very decided drop in 1883, the number in 1882 being 68 with a tonnage of 12,980, while in 1883 it fell to 8 with a tonnage of 5,973, and there continued until after 1888, the reason for this diminution being that after 1882 the registration of unrigged craft was no longer compulsory. This fact, too, explains the discrepancy between the total for the 1889 fleet as reported by the Commissioner of Navigation and that reported by the census. The Commissioner of Navigation gives 9 barges with a tonnage of 6,078 as the registered fleet of unrigged, while the census gives 489 unrigged with a tonnage of 63,356 as the registered and unregistered fleet of unrigged. Leaving out the unrigged, the Commissioner of Navigation reports on 1,358 registered steamers and sailing vessels, while the census reports on 1,353 vessels.

Tables 30 to 37, inclusive, show the average tonnage of all steamers, sailing vessels, and unrigged craft registered in each district for the decade, the annual average number of vessels registered, and the fluctuations from that annual average for each district and for each year. The following summary presents the average tonnage per vessel of each year's registered fleet at a glance:

TABLE R.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	1,124	270,401.75	240.93
1881.....	1,128	284,425.60	252.15
1882.....	1,166	300,766.83	257.95
1883.....	1,169	326,944.94	279.68
1884.....	1,202	334,188.81	278.03
1885.....	1,250	360,110.56	288.09
1886.....	1,253	347,059.73	276.98
1887.....	1,217	355,814.58	292.37
1888.....	1,293	399,173.18	308.72
1889.....	1,367	435,004.14	318.22

The gradual increase in the average tonnage of the registered fleet is shown in the preceding tables, and the two summaries following show whether this increase is on the part of steamers or of the sailing vessels:

TABLE S.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	305	110,414.61	362.02
1881.....	310	112,434.54	362.69
1882.....	326	120,434.04	369.43
1883.....	349	134,435.75	385.20
1884.....	384	146,561.82	381.67
1885.....	402	153,808.04	382.61
1886.....	416	156,320.30	375.77
1887.....	426	160,139.75	375.91
1888.....	459	168,268.58	366.60
1889.....	517	180,496.04	349.12

STATISTICS OF TRANSPORTATION.

TABLE T.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED IN THE PACIFIC COAST DISTRICTS FOR THE TEN YEARS, 1880-1889.

YEARS.	Number.	Tonnage.	Average tonnage.
1880.....	752	148,400.41	197.34
1881.....	748	158,940.98	212.40
1882.....	772	167,351.44	216.78
1883.....	812	186,536.21	229.72
1884.....	818	187,626.99	229.37
1885.....	840	200,329.54	238.49
1886.....	829	184,766.45	222.88
1887.....	783	189,701.85	242.28
1888.....	826	224,931.62	272.31
1889.....	841	248,429.78	295.40

From these two summaries it is demonstrated that the increase of tonnage has been on the part of the sailing vessels. In 1880 the average tonnage of the registered fleet of steamers was 362.02, and while in 1883 it increased to 385.20, it decreased continuously from that time until in 1889 it was 349.12. On the other hand, while the average annual tonnage of the Pacific coast registered sailing vessels in 1880 was 197.34, it rose steadily from that to an average of 295.40 in 1889.

The numbers given in Tables S and T will not uniformly balance with the numbers for all vessels in Table R, since a separate statement for unrigged craft was not given for each year.

SHIPBUILDING RECORDS.

In Table 38 are set down the records of shipbuilding in the customs districts of the Pacific coast during the ten years 1880-1889. The following summary shows the number, tonnage, and average tonnage of the steamers and sailing vessels built during each year of the decade:

TABLE U.—SUMMARY SHOWING THE NUMBER, TONNAGE, AND AVERAGE TONNAGE OF THE STEAMERS AND SAILING VESSELS BUILT ON THE PACIFIC COAST IN THE TEN YEARS 1880-1889.

YEARS.	STEAMERS.			SAILING VESSELS.		
	Number.	Tonnage.	Average tonnage.	Number.	Tonnage.	Average tonnage.
Total for 10 years.....	369	68,351.18	185.23	390	58,353.33	149.62
1880.....	25	7,642.61	305.70	15	937.44	62.50
1881.....	21	3,010.41	143.35	35	7,382.15	210.92
1882.....	28	6,727.35	240.26	46	9,043.17	196.59
1883.....	34	4,019.17	118.21	56	11,547.84	206.21
1884.....	42	5,865.99	139.67	42	4,746.37	113.01
1885.....	38	8,867.37	233.35	35	2,133.91	60.97
1886.....	23	3,023.31	131.45	35	2,890.61	82.59
1887.....	32	3,750.45	117.20	39	5,355.79	137.33
1888.....	55	12,710.22	231.09	48	9,140.87	190.43
1889.....	71	12,734.30	179.36	39	5,175.18	132.70

Table 39, which is the last of the tables of comparative statistics, deals only with the steamers built in each of the ten years, and considers them under the various methods of propulsion; that is, whether propeller, side-wheel, or stern-wheel. From this table it is seen that of 369 steamers with a tonnage of 68,351.18, 241 were propellers with a tonnage of 31,728.75, 37 were side-wheelers with a tonnage of 16,133.22, and 91 were stern-wheelers with a tonnage of 20,489.21. The records of annual construction of these three classes of steamers are plainly exhibited in the summary on the following page.

TRANSPORTATION ON THE PACIFIC COAST.

177

TABLE V.—SUMMARY SHOWING THE NUMBER AND TONNAGE OF PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS BUILT ON THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

YEARS.	METHODS OF PROPULSION.					
	Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for 10 years.....	241	31,728.75	37	16,133.22	91	20,489.21
1880.....	10	402.48	9	5,804.35	6	1,435.78
1881.....	10	887.12	4	325.06	7	1,798.23
1882.....	15	3,915.90	3	253.10	10	2,558.35
1883.....	27	3,097.03			7	922.14
1884.....	24	1,428.00	6	2,583.37	12	1,854.62
1885.....	22	3,219.04	5	2,908.51	11	2,649.82
1886.....	13	1,145.71			10	1,877.60
1887.....	26	2,720.48	2	347.62	4	682.35
1888.....	43	7,749.66	3	2,427.60	9	2,532.96
1889.....	51	7,163.33	5	1,393.61	15	4,177.36

CONGRESSIONAL APPROPRIATIONS.

In the last of the tables (Table 40) entitled "Congressional appropriations", it will be seen that the earliest appropriation made by the government for the improvement of the rivers and harbors of the Pacific coast was in 1852, when \$111,000 were set aside for the survey and improvement of San Diego river and harbor. Since that time nearly a hundred localities have been improved under congressional aid, the sums appropriated up to 1890 amounting to \$9,964,800. Of this amount \$2,315,000 were appropriated up to and including 1879, \$5,527,200 were included in the decade marked by 1880-1889, the remaining \$2,122,600 having been appropriated by the act of September 19, 1890.

Of the total amount, \$111,500 were appropriated for Washington, of which amount \$78,500 were appropriated between 1880 and 1889 and the remaining \$33,000 in 1890.

The appropriations for Oregon amounted to \$5,765,050, of which amount \$1,107,000 were appropriated up to and including 1879; \$3,164,950 in the ten years 1880-1889, and \$1,493,100 by the act of September 19, 1890.

The appropriations for California amounted to \$4,038,250, of which amount \$1,158,000 were appropriated up to and including 1879; \$2,283,750 were appropriated from 1880 to 1889, inclusive, and \$596,500 by the act of September 19, 1890.

Between the sum of these amounts, however, and the \$9,964,800 given as the total appropriations for the Pacific coast there is a difference of \$50,000, that sum being a general appropriation for which there was no indication of special locality, but which was made for such comprehensive purposes as general expenses and surveys.

Charged to the states the total appropriations are set down in the following summary:

TABLE W.—SUMMARY SHOWING THE AMOUNTS APPROPRIATED BY CONGRESS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS AND RIVERS OF THE PACIFIC COAST, GIVEN BY PERIODS AND ALLOTTED TO THE RESPECTIVE STATES FOR WHICH THE APPROPRIATIONS WERE MADE.

STATES.	Date of earliest appropriations.	Total appropriations up to date.	Appropriations up to and including 1879.	Appropriations from 1880-1889, inclusive.	Appropriations by act of Congress September 19, 1890.
Total		\$9,964,800	\$2,315,000	\$5,527,200	\$2,122,600
Washington	1880	111,500		78,500	33,000
Oregon	1866	5,765,050	1,107,000	3,164,950	1,493,100
California	1852	4,038,250	1,158,000	2,283,750	596,500
General expenses all states.	1866	50,000	50,000		

STATISTICS OF TRANSPORTATION.

LANDINGS AND DISTANCES.

In accordance with the plan pursued when treating of the other branches of water transportation, this text may be brought to a close by giving a list of the principal trading points on the Pacific coast, with the distances from the principal ports.

DISTANCES BETWEEN OLYMPIA, WASHINGTON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES,
GOING SOUTH TO SAN DIEGO, CALIFORNIA.

	MILES.		MILES.		MILES.
Tacoma, Washington.....	40	Bay Center, Washington.....	335	Crescent, California.....	657
Seattle, Washington.....	56	Oysterville, Washington.....	340	Arcata, California.....	713
Skokomish, Washington.....	134	Ilwaco, Washington.....	351	Eureka, California.....	706
Freeport, Washington.....	54	Cape Disappointment, Washington...	346	Cape Mendocino, California.....	724
Dwamish, Washington.....	60	Knappton, Washington.....	360	Shelter Cove, California.....	756
Port Madison, Washington.....	60	Cathlamet, Washington.....	383	Westport, California.....	783
Snohomish, Washington.....	96	Kalama, Washington.....	416	Mendocino, California.....	806
Port Townsend, Washington.....	94	Vancouver, Washington.....	452	Navarro, California.....	816
Utsaladdy, Washington.....	105	Cascades, Washington.....	484	Point Arena, California.....	832
Stillaguamish, Washington.....	110	Salem, Oregon.....	516	Tomales, California.....	897
Lacconner, Washington.....	115	Oregon city, Oregon.....	464	San Francisco, California.....	945
Fidalgo, Washington.....	130	Portland, Oregon.....	456	Mare island, California.....	967
Mount Vernon, Washington.....	125	St. Helen, Oregon.....	428	Oakland, California.....	950
Whatcom, Washington.....	145	Clifton, Oregon.....	380	Santa Cruz, California.....	999
Friday harbor, Washington.....	130	Knappa, Oregon.....	366	Castroville, California.....	1,010
New Dungeness, Washington.....	120	Astoria, Oregon.....	360	Monterey, California.....	1,010
Port Angeles, Washington.....	135	Skipanon, Oregon.....	356	Point Sur, California.....	1,031
Pysht, Washington.....	170	Port Klatsop, Oregon.....	357	San Simeon, California.....	1,096
Neah bay, Washington.....	195	Nehalem bay, Oregon.....	384	Cayucos, California.....	1,116
Cape Flattery, Washington.....	209	Tillamook head, Oregon.....	367	Port Harford, California.....	1,129
Quinault, Washington.....	276	Netarts bay, Oregon.....	406	Point Sal, California.....	1,145
Port Grenville, Washington.....	278	Cape Lookout, Oregon.....	405	Santa Barbara, California.....	1,223
Humtulpis, Washington.....	313	Yaquina, Oregon.....	454	San Buenaventura, California.....	1,253
Grays harbor, Washington.....	308	Oysterville, Oregon.....	454	Hueneme, California.....	1,258
Hoquiam, Washington.....	317	Florence, Oregon.....	492	Santa Monica, California.....	1,302
Montesano, Washington.....	335	Empire city, Oregon.....	535	Wilmington, California.....	1,323
Chehalis, Washington.....	303	Coos city, Oregon.....	546	San Pedro, California.....	1,320
Cosmopolis, Washington.....	324	Cape Blanco, Oregon.....	562	San Juan Capistrano, California.....	1,356
Bay city, Washington.....	310	Port Orford, Oregon.....	573	Delmar, California.....	1,393
Petersons point, Washington.....	308	Ellensburg, Oregon.....	594	San Diego, California.....	1,420
Willapa, Washington.....	340	Chetco, Oregon.....	616		

DISTANCES BETWEEN SAN FRANCISCO, CALIFORNIA, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED
STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

	MILES.		MILES.		MILES.
Mare island, California.....	23	Cayucos, California.....	204	Santa Monica, California.....	389
Oakland, California.....	5	Port Harford, California.....	216	Wilmington, California.....	410
Santa Cruz, California.....	80	Point Sal, California.....	232	San Pedro, California.....	407
Castroville, California.....	97	Santa Barbara, California.....	310	San Juan Capistrano, California.....	443
Monterey, California.....	97	San Buenaventura, California.....	340	Delmar, California.....	481
Point Sur, California.....	119	Hueneme, California.....	345	San Diego, California.....	508
San Simeon, California.....	184				

TRANSPORTATION ON THE PACIFIC COAST.

179

DISTANCES BETWEEN SAN FRANCISCO, CALIFORNIA, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING NORTH TO OLYMPIA, WASHINGTON.

MILES.		MILES.		MILES.	
Drake's bay, California.....	25	Port Klatsop, Oregon.....	589	Grays harbor, Washington.....	643
Tomales, California.....	54	Skipanon, Oregon.....	609	Humptulips, Washington.....	648
Point Arena, California.....	113	Astoria, Oregon.....	613	Port Grenville, Washington.....	667
Navarro, California.....	130	Knappa, Oregon.....	619	Quinault, Washington.....	670
Mendocino, California.....	140	Clifton, Oregon.....	633	Cape Flattery, Washington.....	745
Westport, California.....	162	St. Helen, Oregon.....	681	Neah bay, Washington.....	750
Shelter Cove, California.....	189	Portland, Oregon.....	709	Pysht, Washington.....	775
Cape Mendocino, California.....	221	Oregon city, Oregon.....	711	Port Angeles, Washington.....	810
Eureka or Humboldt bay, California..	248	Salem, Oregon.....	769	New Dungeness, Washington.....	825
Arcata, California.....	254	Cascades, Washington.....	737	Friday harbor, Washington.....	845
Trinidad bay, California.....	264	Vancouver, Washington.....	705	Whatcom, Washington.....	870
Crescent, California.....	308	Kalama, Washington.....	669	Mount Vernon, Washington.....	865
Chetco, Oregon.....	329	Cathlamet, Washington.....	636	Fidalgo, Washington.....	855
Ellensburg, Oregon.....	351	Knappton, Washington.....	613	Lacconner, Washington.....	855
Port Orford, Oregon.....	373	Cape Disappointment, Washington....	599	Stillaguamish, Washington.....	860
Cape Blanco, Oregon.....	383	Ilwaco, Washington.....	605	Utsaladdy, Washington.....	857
Coos city, Oregon.....	427	Oysterville, Washington.....	637	Port Townsend, Washington.....	845
Empire city, Oregon.....	416	Bay Center, Washington.....	632	Snohomish, Washington.....	895
Florence, Oregon.....	464	Willapa, Washington.....	637	Port Madison, Washington.....	880
Oysterville, Oregon.....	508	Petersons point, Washington.....	643	Dwamish, Washington.....	895
Yaquina, Oregon.....	508	Bay city, Washington.....	645	Freeport, Washington.....	888
Cape Lookout, Oregon.....	540	Cosmopolis, Washington.....	659	Skokomish, Washington.....	905
Netarts bay, Oregon.....	545	Chehalis, Washington.....	637	Seattle, Washington.....	890
Tillamook head, Oregon.....	578	Montesano, Washington.....	670	Tacoma, Washington.....	915
Nehalem bay, Oregon.....	562	Hoquiam, Washington.....	651	Olympia, Washington.....	945

DISTANCES BETWEEN PORTLAND, OREGON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING NORTH TO OLYMPIA, WASHINGTON.

MILES.		MILES.		MILES.	
Oregon city, Oregon.....	12	Chehalis, Washington.....	148	Mount Vernon, Washington.....	376
Salem, Oregon.....	60	Montesano, Washington.....	181	Fidalgo, Washington.....	366
Cascades, Washington.....	52	Hoquiam, Washington.....	162	Lacconner, Washington.....	366
Vancouver, Washington.....	18	Grays harbor, Washington.....	154	Stillaguamish, Washington.....	371
Kalama, Washington.....	40	Humptulips, Washington.....	159	Utsaladdy, Washington.....	368
Cathlamet, Washington.....	73	Port Grenville, Washington.....	178	Port Townsend, Washington.....	356
Knappton, Washington.....	96	Quinault, Washington.....	181	Snohomish, Washington.....	406
Cape Disappointment, Washington....	110	Cape Flattery, Washington.....	256	Port Madison, Washington.....	391
Ilwaco, Washington.....	105	Neah bay, Washington.....	261	Dwamish, Washington.....	406
Oysterville, Washington.....	148	Pysht, Washington.....	286	Freeport, Washington.....	399
Bay Center, Washington.....	143	Port Angeles, Washington.....	321	Skokomish, Washington.....	416
Willapa, Washington.....	148	New Dungeness, Washington.....	336	Seattle, Washington.....	401
Petersons point, Washington.....	154	Friday harbor, Washington.....	356	Tacoma, Washington.....	426
Bay city, Washington.....	156	Whatcom, Washington.....	381	Olympia, Washington.....	456
Cosmopolis, Washington.....	170				

DISTANCES BETWEEN PORTLAND, OREGON, AND OTHER POINTS ON THE PACIFIC COAST OF THE UNITED STATES, GOING SOUTH TO SAN DIEGO, CALIFORNIA.

MILES.		MILES.		MILES.	
St. Helen, Oregon.....	28	Ellensburg, Oregon.....	357	Castroville, California.....	774
Clifton, Oregon.....	76	Chetco, Oregon.....	379	Monterey, California.....	774
Knappa, Oregon.....	82	Crescent, California.....	400	Point Sur, California.....	795
Astoria, Oregon.....	96	Arcata, California.....	476	San Simeon, California.....	860
Skipanon, Oregon.....	100	Eureka, California.....	471	Cayucos, California.....	880
Port Klatsop, Oregon.....	120	Cape Mendocino, California.....	487	Port Harford, California..	893
Nehalem bay, Oregon.....	147	Shelter Cove, California.....	519	Point Sal, California.....	909
Tillamook head, Oregon.....	130	Westport, California.....	546	Santa Barbara, California.....	1,087
Netarts bay, Oregon.....	163	Mendocino, California.....	568	San Buenaventura, California.....	1,117
Cape Lookout, Oregon.....	168	Navarro, California.....	579	Hueneme, California.....	1,122
Yaquina, Oregon.....	217	Point Arena, California.....	595	Santa Monica, California.....	1,166
Oysterville, Oregon.....	217	Tomales, California.....	660	Wilmington, California.....	1,187
Florence, Oregon.....	255	San Francisco, California.....	709	San Pedro, California.....	1,184
Empire city, Oregon.....	298	Mare island, California.....	731	San Juan Capistrano, California.....	1,220
Coos city, Oregon.....	309	Oakland, California.....	714	Delmar, California.....	1,257
Cape Blanco, Oregon.....	325	Santa Cruz, California.....	763	San Diego, California.....	1,284
Port Orford, Oregon.....	336				

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER FIVE TONS BURDEN REGISTERED OR OWNED IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST CREDITED TO THE RESPECTIVE DISTRICTS, WITH TOTALS FOR EACH STATE.

CUSTOMS DISTRICTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valua- tion.
Total	1,842	441,939	\$23,067,370	531	170,503	\$15,526,455	822	208,080	\$6,715,570	489	63,356	\$825,365
California.....	1,177	304,686	16,148,080	251	106,667	9,792,905	697	162,946	5,753,975	229	35,273	601,300
San Diego.....	57	3,227	112,450	8	800	62,500	21	461	36,975	28	1,966	12,975
Wilmington.....	56	5,562	287,900	10	933	188,500	13	694	37,400	33	3,935	62,000
San Francisco.....	1,018	289,750	15,400,205	223	104,149	9,459,405	649	158,519	5,434,100	146	27,082	506,700
Humboldt.....	46	6,347	347,525	10	785	82,500	14	3,272	245,500	22	2,290	19,325
Oregon.....	366	68,963	4,733,365	165	50,628	4,492,200	43	2,776	97,065	158	15,559	144,100
Southern Oregon.....	109	3,887	99,290	15	771	70,000	1	90	8,000	93	3,026	20,000
Yaquina.....	16	2,321	287,000	13	2,281	287,400				3	40	200
Oregon.....	105	5,353	347,990	41	3,172	284,100	36	690	50,080	28	1,491	13,600
Willamette.....	130	57,402	3,998,485	96	44,404	3,850,100	6	1,996	38,985	34	11,002	100,400
Washington—Puget sound.....	299	68,090	2,185,925	115	13,208	1,241,350	82	42,358	864,530	102	12,524	80,045

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 2.—OCCUPATION AND VALUATION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT OF OVER FIVE TONS BURDEN, DIVIDED INTO CLASSES INDICATIVE OF OCCUPATION.

CUSTOMS DISTRICTS.	TOTAL EQUIPMENT.				STEAMERS.									
					Passenger and freight.				Ferry.				Fish.	
	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valua- tion.	Value per gross ton.	Num- ber.	Gross ton- nage.
Total	1,842	441,939	\$23,067,370	\$52.20	354	129,491	\$12,060,755	\$97.77	38	24,630	\$979,300	\$39.76	24	4,343
California	1,177	304,886	16,148,080	52.96	147	73,833	7,657,705	103.72	20	22,551	816,000	36.18	14	3,960
San Diego	57	3,227	112,450	34.85					3	498	31,500	64.55		
Wilmington	56	5,562	287,900	51.76	5	756	149,500	197.75						
San Francisco	1,018	289,750	15,400,205	53.15	136	72,626	7,479,705	102.99	17	22,063	784,500	35.56	14	3,960
Humboldt	46	6,347	347,525	54.75	6	451	28,500	63.19						
Oregon	366	68,963	4,733,365	68.64	114	45,016	4,027,200	89.46	16	1,783	118,300	66.35	9	370
Southern Oregon	109	3,887	99,290	25.54	12	651	48,300	74.19	1	20	1,200	60.00		
Yaquina	16	2,321	287,600	123.91	7	1,077	125,000	116.06	1	16	900	56.25	1	106
Oregon	105	5,353	347,990	65.01	33	2,897	247,600	85.47					5	185
Willamette	136	57,402	3,998,485	69.66	62	40,391	3,606,300	89.28	14	1,747	116,200	66.51	3	79
Washington—Puget sound ..	299	68,090	2,185,925	32.10	93	10,642	975,850	91.70	2	206	45,000	152.03	1	13

STEAMERS—continued.														
CUSTOMS DISTRICTS.	Fish—Continued.		Harbor tugs.				Yachts.				No traffic report.			
	Valua- tion.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valua- tion.	Value per gross ton.	Num- ber.	Gross tonnage.	Valua- tion.	Value per gross ton.
Total	\$411,500	\$94.75	70	6,109	\$1,120,800	\$183.47	3	63	\$6,500	\$103.17	42	5,867	\$347,600	\$59.25
California	341,000	86.11	52	4,279	833,500	194.79	1	18	2,500	138.89	17	2,026	142,200	70.19
San Diego			4	294	28,500	96.94	1	18	2,500	138.89				
Wilmington			1	80	22,000	247.19					4	88	17,000	193.18
San Francisco	341,000	86.11	44	3,626	732,000	201.88					12	1,874	122,200	65.21
Humboldt			3	270	51,000	188.89					1	64	3,000	46.88
Oregon	69,000	186.49	9	484	108,300	223.76					17	2,975	169,400	56.94
Southern Oregon			2	100	21,100	211.00								
Yaquina	25,000	235.85	2	126	44,500	353.17					2	956	92,000	96.23
Oregon	24,000	129.73	1	14	2,000	142.86					2	76	10,500	138.16
Willamette	20,000	253.16	4	244	40,700	166.80					13	1,943	66,900	34.43
Washington—Puget sound ..	1,500	115.38	9	1,346	179,000	132.99	2	45	4,000	88.89	8	866	36,000	41.57

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 2.—OCCUPATION AND VALUATION BY CLASSES—Continued.

CUSTOMS DISTRICTS.	SAILING VESSELS.											
	Freight.				Fish.				Pilot boats.			
	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.
Total	647	194,478	\$6,112,340	\$31.43	60	6,372	\$280,955	\$44.09	9	418	\$49,700	\$118.90
California	577	150,825	5,236,900	34.72	42	5,897	242,525	41.13	6	258	30,000	116.3
San Diego	7	222	20,350	91.67	2	31	2,625	84.68	1	20	3,000	150.00
Wilmington	8	588	27,400	46.60					1	8	2,500	312.50
San Francisco	549	146,924	4,948,150	33.68	40	5,866	239,900	40.90	4	230	24,500	106.52
Humboldt	13	3,091	241,000	77.97								
Oregon	18	2,022	53,385	26.40	10	137	12,730	92.92	2	141	19,000	134.75
Southern Oregon	1	90	8,000	88.89								
Yaquina												
Oregon	14	220	10,350	47.05	10	137	12,730	92.92	2	141	19,000	134.75
Willamette	3	1,712	35,035	20.46								
Washington—Puget sound ..	52	41,631	822,055	19.75	8	338	25,700	76.04	1	19	700	36.84

CUSTOMS DISTRICTS.	SAILING VESSELS—continued.								UNRIGGED CRAFT.			
	Yachts.				No traffic report.				Freight.			
	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.	Num- ber.	Gross tonnage.	Valuation.	Value per gross ton.
Total	25	612	\$69,300	\$113.24	81	6,200	\$203,275	\$32.79	489	63,856	\$825,345	\$13.03
California	24	604	68,800	113.91	48	5,362	175,750	32.78	229	35,273	601,200	17.04
San Diego	7	101	8,500	84.16	4	87	2,500	28.74	28	1,966	12,975	6.60
Wilmington	4	98	7,500	76.53					33	3,935	62,090	15.76
San Francisco	13	405	52,800	130.37	43	5,094	168,750	33.13	146	27,082	506,700	18.71
Humboldt					1	181	4,500	24.86	22	2,290	19,525	8.53
Oregon					13	476	11,950	25.11	158	15,559	144,100	9.26
Southern Oregon									93	3,026	20,600	6.84
Yaquina									3	40	200	5.00
Oregon					10	192	8,000	41.67	28	1,491	13,810	9.26
Willamette					3	284	3,950	13.91	34	11,002	109,400	9.94
Washington—Puget sound ..	1	8	500	62.50	20	362	15,575	43.02	102	12,524	80,045	6.39

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP, AND GROUPED FOR EACH CLASS OF OCCUPATION.

ALL STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total steam and sail	1,353	378,583	994	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Total steam	531	170,503	252	34,114	25	3,368	254	133,021	3,147,650	324,500	12,054,305
Total sail	822	208,080	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105

STEAMERS.

PASSENGER AND FREIGHT.

Total	354	129,491	179	27,140	18	2,825	157	99,526	2,417,850	246,500	9,996,405
California	147	73,833	57	13,532	12	2,510	78	57,771	1,302,500	193,000	6,162,205
Wilmington	5	756					5	756			149,500
San Francisco	136	72,626	53	13,288	12	2,510	71	56,828	1,285,000	193,000	6,001,705
Humboldt	6	451	4	264			2	187	17,500		11,000
Oregon	114	45,016	53	7,537	5	236	56	37,243	592,700	33,500	3,401,000
Southern Oregon	12	651	8	365	3	173	1	113	21,800	22,500	4,000
Yaquina	7	1,077	7	1,077					125,000		
Oregon	33	2,897	22	1,062	2	63	9	872	167,600	11,000	69,000
Willamette	62	40,391	16	4,133			46	36,258	278,300		3,328,000
Washington—Puget sound	93	10,642	69	6,051	1	79	23	4,512	522,650	20,000	433,200

FERRY.

Total	38	24,630	7	202	2	216	29	24,212	28,600	13,000	937,700
California	20	22,551					20	22,551			\$16,000
San Diego	3	488					3	488			31,500
San Francisco	17	22,063					17	22,063			784,500
Oregon	16	1,783	6	179	2	216	8	1,388	23,600	13,000	81,700
Southern Oregon	1	20	1	20					1,200		
Yaquina	1	16	1	16					900		
Willamette	14	1,747	4	143	2	216	8	1,388	21,500	13,000	81,700
Washington—Puget sound	2	296	1	23			1	273	5,000		40,000

FISH.

Total	24	4,343	5	626	2	149	17	3,568	45,000	24,000	342,500
California—San Francisco	14	3,960	1	516	1	91	12	3,353	20,000	18,000	303,000
Oregon	9	370	4	110	1	58	4	202	25,000	6,000	38,000
Yaquina	1	106					1	106			25,000
Oregon	5	185	1	31	1	58	3	96	5,000	6,000	13,000
Willamette	3	79	3	79					20,000		
Washington—Puget sound	1	13					1	13			1,500

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR TUGS.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	70	6,109	33	2,189	3	178	34	3,742	\$440,800	\$41,000	\$539,000
California	52	4,279	24	1,739	2	55	26	2,485	396,000	16,000	421,500
San Diego	4	294	2	29			2	265	8,500		20,000
Wilmington	1	89					1	89			22,000
San Francisco	44	3,626	19	1,440	2	55	23	2,131	336,500	16,000	379,500
Humboldt	3	270	3	270					51,000		
Oregon	9	484	6	174			3	310	30,300		78,000
Southern Oregon	2	100	2	100					21,100		
Yaquina	2	126	1	34			1	92	4,500		40,000
Oregon	1	14	1	14					2,000		
Willamette	4	244	2	26			2	218	2,700		38,000
Washington—Puget sound	9	1,346	3	276	1	123	5	947	14,500	25,000	139,500

YACHTS.

Total	3	63	2	45			1	18	4,000		2,500
California—San Diego	1	18					1	18			2,500
Washington—Puget sound	2	45	2	45					4,000		

NO TRAFFIC REPORT.

Total	42	5,867	26	3,912			16	1,955	211,400		136,200
California	17	2,026	8	1,401			9	625	43,500		96,700
Wilmington	4	88	2	48			2	40	7,500		9,500
San Francisco	12	1,874	5	1,289			7	585	33,000		89,200
Humboldt	1	64	1	64					8,000		
Oregon	17	2,975	13	2,058			4	917	138,400		31,000
Yaquina	2	956	1	883			1	73	80,000		12,000
Oregon	2	76	2	76					10,500		
Willamette	13	1,943	10	1,099			3	844	47,900		19,000
Washington—Puget sound	8	866	5	453			3	418	29,500		6,500

SAILING VESSELS.

FREIGHT.

Total	647	194,478	587	157,048	1	594	59	36,836	5,369,835	15,000	727,505
California	577	150,825	544	141,871	1	594	32	8,360	4,951,900	15,000	270,000
San Diego	7	222	5	80			2	142	5,350		15,000
Wilmington	8	588	8	588					27,400		
San Francisco	549	146,924	518	138,112	1	594	30	8,218	4,678,150	15,000	255,000
Humboldt	13	3,091	13	3,091					241,000		
Oregon	18	2,022	18	2,022					53,385		
Southern Oregon	1	90	1	90					8,000		
Oregon	14	220	14	220					10,350		
Willamette	3	1,712	3	1,712					35,035		
Washington—Puget sound	52	41,631	25	13,155			27	28,476	364,550		457,505

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—OWNERSHIP BY CLASSES—Continued.

SAILING VESSELS—Continued.

FISH.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total	60	6,372	46	4,084	1	40	13	2,248	\$190,555	\$4,000	\$77,400
California	42	5,897	30	3,663			12	2,234	166,925		75,600
San Diego	2	31	2	31					2,625		
San Francisco	40	5,866	28	3,632			12	2,234	164,300		75,600
Oregon—Oregon	10	137	10	137					12,730		
Washington—Puget sound	8	338	6	284	1	40	1	14	19,900	4,000	1,800

PILOT BOATS.

Total	9	418	8	354			1	64	39,700		10,000
California	6	258	6	258					30,000		
San Diego	1	20	1	20					3,000		
Wilmington	1	8	1	8					2,500		
San Francisco	4	230	4	230					24,500		
Oregon—Oregon	2	141	1	77			1	64	9,000		10,000
Washington—Puget sound	1	19	1	19					700		

YACHTS.

Total	25	612	25	612					60,300		
California	24	604	24	604					68,800		
San Diego	7	101	7	101					8,500		
Wilmington	4	98	4	98					7,500		
San Francisco	13	405	13	405					52,800		
Washington—Puget sound	1	8	1	8					500		

NO TRAFFIC REPORT.

Total	81	6,200	76	4,493			5	1,707	175,075		28,200
California	48	5,362	43	3,655			5	1,707	147,550		28,200
San Diego	4	87	4	87					2,500		
San Francisco	43	5,094	38	3,387			5	1,707	140,560		28,200
Humboldt	1	181	1	181					4,500		
Oregon	13	476	13	476					11,950		
Oregon	10	192	10	192					8,000		
Willamette	3	284	3	284					3,950		
Washington—Puget sound	20	362	20	362					15,575		

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO INDIVIDUAL, JOINT STOCK, AND CORPORATE OWNERSHIP, AND GROUPED BY DISTRICTS.

ALL STEAMERS AND SAILING VESSELS.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Total steam and sail.....	1,353	378,583	994	200,705	27	4,002	332	173,876	\$9,001,115	\$343,500	\$12,897,410
Total steam.....	531	170,503	252	34,114	25	3,368	254	133,021	3,147,650	324,500	12,054,305
Total sail.....	822	208,080	742	166,591	2	634	78	40,855	5,853,465	19,000	843,105

STEAMERS.

Total for California.....	251	106,667	90	17,208	15	2,656	146	86,803	1,762,000	227,000	7,803,905
San Diego, California.....	8	800	2	29			6	771	8,500		54,000
Ferry.....	3	488					3	488			31,500
Harbor tugs.....	4	294	2	29			2	265	8,500		20,000
Yachts.....	1	18					1	18			2,500
Wilmington, California.....	10	933	2	48			8	885	7,500		181,000
Passenger and freight.....	5	756					5	756			149,500
Harbor tugs.....	1	89					1	89			22,000
No traffic report.....	4	88	2	48			2	40	7,500		9,500
San Francisco, California.....	223	104,140	78	16,533	15	2,656	130	84,960	1,674,500	227,000	7,557,905
Passenger and freight.....	136	72,626	53	13,288	12	2,510	71	56,828	1,285,000	193,000	6,001,705
Ferry.....	17	22,063					17	22,063			784,500
Fish.....	14	3,960	1	516	1	91	12	3,353	20,000	18,000	303,000
Harbor tugs.....	44	3,626	19	1,440	2	55	23	2,131	336,500	16,000	379,500
No traffic report.....	12	1,874	5	1,289			7	585	33,000		89,200
Humboldt, California.....	10	785	8	598			2	187	71,500		11,000
Passenger and freight.....	6	451	4	264			2	187	17,500		11,000
Harbor tugs.....	3	270	3	270					51,000		
No traffic report.....	1	64	1	64					3,000		
Total for Oregon.....	165	50,628	82	10,058	8	510	75	40,060	810,000	52,500	3,629,700
Southern Oregon, Oregon.....	15	771	11	485	3	173	1	113	44,100	22,500	4,000
Passenger and freight.....	12	651	8	365	3	173	1	113	21,800	22,500	4,000
Ferry.....	1	20	1	20					1,200		
Harbor tugs.....	2	100	2	100					21,100		
Yaquina, Oregon.....	13	2,281	10	2,010			3	271	210,400		77,000
Passenger and freight.....	7	1,077	7	1,077					125,000		
Ferry.....	1	16	1	16					900		
Fish.....	1	106					1	106			25,000
Harbor tugs.....	2	126	1	34			1	92	4,500		40,000
No traffic report.....	2	956	1	883			1	73	80,000		12,000
Oregon, Oregon.....	41	3,172	26	2,083	3	121	12	968	185,100	17,000	82,000
Passenger and freight.....	33	2,897	22	1,962	2	63	9	872	167,600	11,000	69,000
Fish.....	5	185	1	31	1	58	3	96	5,000	6,000	13,000
Harbor tugs.....	1	14	1	14					2,000		
No traffic report.....	2	76	2	76					10,500		
Willamette, Oregon.....	96	44,404	35	5,480	2	216	59	38,708	370,400	13,000	3,466,700
Passenger and freight.....	62	40,391	16	4,133			46	36,258	278,300		3,328,000
Ferry.....	14	1,747	4	143	2	216	8	1,388	21,500	13,000	81,700
Fish.....	3	79	3	79					20,000		
Harbor tugs.....	4	244	2	26			2	218	2,700		38,000
No traffic report.....	13	1,943	10	1,099			3	844	47,900		19,000

TRANSPORTATION ON THE PACIFIC COAST.

187

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OWNERSHIP BY LOCALITIES—Continued.

STEAMERS—Continued.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY OWNERSHIP.						VALUATION BY OWNERSHIP.		
			Individual.		Joint stock.		Corporate.		Individual.	Joint stock.	Corporate.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.			
Puget sound, Washington	115	13,208	80	6,848	2	202	33	6,158	\$575,650	\$45,000	\$820,700
Passenger and freight	93	10,642	69	6,051	1	79	23	4,512	522,650	20,000	433,200
Ferry	2	296	1	23			1	273	5,000		40,000
Fish	1	13					1	13			1,500
Harbor tugs	9	1,346	3	276	1	123	5	947	14,500	25,000	139,500
Yachts	2	45	2	45					4,000		
No traffic report	8	866	5	453			3	413	29,500		6,500

SAILING VESSELS.

Total for California	697	162,946	647	150,051	1	594	40	12,301	5,365,175	15,000	373,800
San Diego, California	21	461	19	319			2	142	21,975		15,000
Freight	7	222	5	80			2	142	5,350		15,000
Fish	2	31	2	31					2,625		
Pilot boats	1	20	1	20					3,000		
Yachts	7	101	7	101					8,500		
No traffic report	4	87	4	87					2,500		
Wilmington, California	13	694	13	694					37,400		
Freight	8	588	8	588					27,400		
Pilot boats	1	8	1	8					2,500		
Yachts	4	98	4	98					7,500		
San Francisco, California	649	158,519	601	145,766	1	594	47	12,159	5,060,300	15,000	358,800
Freight	549	146,924	518	138,112	1	594	30	8,218	4,678,150	15,000	255,000
Fish	40	5,866	28	3,632			12	2,234	164,300		75,600
Pilot boats	4	230	4	230					24,500		
Yachts	13	405	13	405					52,800		
No traffic report	43	5,094	38	3,387			5	1,707	140,550		28,200
Humboldt, California	14	3,272	14	3,272					245,500		
Freight	13	3,091	13	3,091					241,000		
No traffic report	1	181	1	181					4,500		
Total for Oregon	43	2,776	42	2,712			1	64	87,065		10,000
Southern Oregon, Oregon:											
Freight	1	90	1	90					8,000		
Oregon, Oregon	36	690	35	626			1	64	40,080		10,000
Freight	14	220	14	220					10,350		
Fish	10	137	10	137					12,730		
Pilot boats	2	141	1	77			1	64	9,000		10,000
No traffic report	10	192	10	192					8,000		
Willamette, Oregon	6	1,996	6	1,996					38,985		
Freight	3	1,712	3	1,712					35,035		
No traffic report	3	284	3	284					3,950		
Puget sound, Washington	82	42,358	53	13,828	1	40	28	28,490	401,225	4,000	459,305
Freight	52	41,031	25	13,155			27	28,476	364,550		457,505
Fish	8	338	6	284	1	40	1	14	19,900	4,000	1,800
Pilot boats	1	19	1	19					700		
Yachts	1	8	1	8					500		
No traffic report	20	362	20	362					15,575		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION, AND GROUPED FOR EACH CLASS OF OCCUPATION.

ALL STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.				
Total steam and sail	1,353	378,583	1,326	328,076	2	1,298	25	49,209	\$22,242,025	\$15,373,960	\$110,000	\$6,758,065
Total steam	531	170,503	506	121,202	1	1,089	24	48,212	15,526,455	8,708,390	100,000	6,712,065
Total sail	822	208,080	820	206,874	1	209	1	997	6,715,570	6,665,570	10,000	40,000

STEAMERS.

PASSENGER AND FREIGHT.

Total	854	129,491	336	82,262	1	1,089	17	46,140	12,660,755	6,162,690	100,000	6,398,065
California	147	73,823	133	45,982	1	1,089	13	26,762	7,657,705	3,759,640	100,000	3,798,065
Wilmington	5	756	5	756					149,500	149,500		
San Francisco	136	72,626	122	44,775	1	1,089	13	26,762	7,479,705	3,581,640	100,000	3,798,065
Humboldt	6	451	6	451					28,500	28,500		
Oregon	114	45,016	111	25,799			3	19,217	4,027,300	1,467,200		2,560,000
Southern Oregon	12	651	12	651					48,300	48,300		
Yaquina	7	1,077	6	160			1	917	125,000	30,000		95,000
Oregon	33	2,897	33	2,897					247,600	247,600		
Willamette	62	40,391	60	22,091			2	18,300	3,606,300	1,141,300		2,465,000
Washington—Puget sound	93	10,642	92	10,481			1	161	975,850	935,850		40,000

FERRY.

Total	38	24,630	37	24,215			1	415	979,300	939,300		40,000
California	20	22,551	20	22,551					816,000	816,000		
San Diego	3	488	3	488					31,500	31,500		
San Francisco	17	22,063	17	22,063					784,500	784,500		
Oregon	16	1,783	15	1,368			1	415	118,300	78,300		40,000
Southern Oregon	1	20	1	20					1,200	1,200		
Yaquina	1	16	1	16					900	900		
Willamette	14	1,747	13	1,332			1	415	116,200	76,200		40,000
Washington—Puget sound	2	296	2	296					45,000	45,000		

FISH.

Total	24	4,343	24	4,343					411,500	411,500		
California—San Francisco	14	3,960	14	3,960					341,000	341,000		
Oregon	9	370	9	370					69,000	69,000		
Yaquina	1	106	1	106					25,000	25,000		
Oregon	5	185	5	185					24,000	24,000		
Willamette	3	79	3	79					20,000	20,000		
Washington—Puget sound	1	13	1	13					1,500	1,500		

TRANSPORTATION ON THE PACIFIC COAST.

189

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—Continued.

STEAMERS—Continued.

HARBOR TUGS.

CUSTOMS DISTRICTS.	Total number	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Total	70	6,109	66	5,540			4	569	\$1,120,800	\$985,800		\$135,000
California.....	52	4,279	50	3,928			2	351	833,500	736,500		97,000
San Diego.....	4	294	4	294					28,500	28,500		
Wilmington.....	1	89	1	89					22,000	22,000		
San Francisco.....	44	3,628	42	3,275			2	351	732,000	635,000		97,000
Humboldt.....	3	270	3	270					51,000	51,000		
Oregon.....	9	484	7	266			2	218	108,300	70,300		38,000
Southern Oregon.....	2	100	2	100					21,100	21,100		
Yaquina.....	2	126	2	126					44,500	44,500		
Oregon.....	1	14	1	14					2,000	2,000		
Willamette.....	4	244	2	26			2	218	40,700	2,700		38,000
Washington—Puget sound.....	9	1,346	9	1,346					179,000	179,000		

YACHTS.

Total	3	63	3	63					6,500	6,500		
California—San Diego.....	1	18	1	18					2,500	2,500		
Washington—Puget sound.....	2	45	2	45					4,000	4,000		

NO TRAFFIC REPORT.

Total	42	5,867	40	4,779			2	1,088	347,600	202,600		145,000
California.....	17	2,026	16	1,821			1	205	142,200	77,200		65,000
Wilmington.....	4	88	4	88					17,000	17,000		
San Francisco.....	12	1,874	11	1,660			1	205	122,200	57,200		65,000
Humboldt.....	1	64	1	64					3,000	3,000		
Oregon.....	17	2,975	16	2,092			1	883	169,400	89,400		80,000
Yaquina.....	2	956	1	73			1	883	92,000	12,000		80,000
Oregon.....	2	76	2	76					10,500	10,500		
Willamette.....	13	1,943	13	1,943					66,900	66,900		
Washington—Puget sound.....	8	866	8	866					36,000	36,000		

SAILING VESSELS.

FREIGHT.

Total	647	194,478	645	193,272	1	209	1	997	6,112,340	6,062,340	10,000	40,000
California.....	577	150,825	575	149,619	1	209	1	997	5,236,900	5,186,900	10,000	40,000
San Diego.....	7	222	7	222					20,350	20,350		
Wilmington.....	8	588	8	588					27,400	27,400		
San Francisco.....	549	146,924	547	145,718	1	209	1	997	4,948,150	4,898,150	10,000	40,000
Humboldt.....	13	3,001	13	3,001					241,000	241,000		
Oregon.....	18	2,022	18	2,022					53,385	53,385		
Southern Oregon.....	1	90	1	90					8,000	8,000		
Oregon.....	14	220	14	220					10,350	10,350		
Willamette.....	3	1,712	3	1,712					35,035	35,035		
Washington—Puget sound.....	52	41,631	52	41,631					822,055	822,055		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY CLASSES—Continued.

SAILING VESSELS—Continued.

FISH.

CUSTOMS DISTRICTS.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.								VALUATION BY MATERIALS OF CONSTRUCTION.			
	Total number.	Total tonnage.	Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Compos-ite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Total	60	6,372	60	6,372					\$280,955	\$280,955		
California.....	42	5,897	42	5,897					242,525	242,525		
San Diego.....	2	31	2	31					2,625	2,625		
San Francisco.....	40	5,866	40	5,866					239,900	239,900		
Oregon—Oregon	10	137	10	137					12,730	12,730		
Washington—Puget sound	8	338	8	338					25,700	25,700		

PILOT BOATS.

Total	9	418	9	418					49,700	49,700		
California.....	6	258	6	258					30,000	30,000		
San Diego.....	1	20	1	20					3,000	3,000		
Wilmington	1	8	1	8					2,500	2,500		
San Francisco.....	4	230	4	230					24,500	24,500		
Oregon—Oregon	2	141	2	141					19,000	19,000		
Washington—Puget sound	1	19	1	19					700	700		

YACHTS.

Total	25	612	25	612					69,300	69,300		
California	24	604	24	604					68,800	68,800		
San Diego.....	7	101	7	101					8,500	8,500		
Wilmington	4	98	4	98					7,500	7,500		
San Francisco	13	405	13	405					52,800	52,800		
Washington—Puget sound	1	8	1	8					500	500		

NO TRAFFIC REPORT.

Total	81	6,200	81	6,200					203,275	203,275		
California.....	48	5,362	48	5,362					175,750	175,750		
San Diego	4	87	4	87					2,500	2,500		
San Francisco	43	5,094	43	5,094					168,750	168,750		
Humboldt	1	181	1	181					4,500	4,500		
Orgeon	13	476	13	476					11,950	11,950		
Oregon	10	192	10	192					8,000	8,000		
Willamette	3	284	3	284					3,950	3,950		
Washington—Puget sound	20	362	20	362					15,575	15,575		

TRANSPORTATION ON THE PACIFIC COAST.

191

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY LOCALITIES—NUMBER, TONNAGE, AND VALUATION OF ALL STEAMERS AND SAILING VESSELS ALLOTTED RESPECTIVELY TO THEIR MATERIALS OF CONSTRUCTION, AND GROUPED BY DISTRICTS.

ALL STEAMERS AND SAILING VESSELS.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Total steam and sail	1,353	378,583	1,326	328,076	2	1,298	25	49,209	\$22,242,025	\$15,373,900	\$110,000	\$6,758,065
Total steam.....	531	170,503	506	121,202	1	1,089	24	48,212	15,526,455	8,708,390	100,000	6,712,065
Total sail	822	208,080	820	206,874	1	209	1	997	6,715,570	6,665,570	10,000	40,000

STEAMERS.

Total for California.....	251	106,667	234	78,280	1	1,089	16	27,318	9,792,905	5,732,840	100,000	3,960,065
San Diego, California.....	8	800	8	800					62,500	62,500		
Ferry.....	3	488	3	488					31,500	31,500		
Harbor tugs.....	4	294	4	294					28,500	28,500		
Yachts.....	1	18	1	18					2,500	2,500		
Wilmington, California.....	10	933	10	933					188,500	188,500		
Passenger and freight.....	5	756	5	756					149,500	149,500		
Harbor tugs.....	1	89	1	89					22,000	22,000		
No traffic report.....	4	88	4	88					17,000	17,000		
San Francisco, California.....	223	104,149	206	75,742	1	1,089	16	27,318	9,459,405	5,399,340	100,000	3,960,065
Passenger and freight.....	136	72,626	122	44,775	1	1,089	13	26,762	7,479,705	3,581,640	100,000	3,798,065
Ferry.....	17	22,063	17	22,063					784,500	784,500		
Fish.....	14	3,900	14	3,900					341,000	341,000		
Harbor tugs.....	44	3,626	42	3,275			2	351	732,000	635,000		97,000
No traffic report.....	12	1,874	11	1,600			1	205	122,200	57,200		65,000
Humboldt, California.....	10	785	10	785					82,500	82,500		
Passenger and freight.....	6	451	6	451					28,500	28,500		
Harbor tugs.....	3	270	3	270					51,000	51,000		
No traffic report.....	1	64	1	64					3,000	3,000		
Total for Oregon.....	165	50,628	158	29,895			7	20,733	4,492,200	1,774,200		2,718,000
Southern Oregon.....	15	771	15	771					70,600	70,600		
Passenger and freight.....	12	651	12	651					48,300	48,300		
Ferry.....	1	20	1	20					1,200	1,200		
Harbor tugs.....	2	100	2	100					21,100	21,100		
Yaquina, Oregon.....	13	2,281	11	481			2	1,800	287,400	112,400		175,000
Passenger and freight.....	7	1,077	6	160			1	917	125,000	30,000		95,000
Ferry.....	1	16	1	16					900	900		
Fish.....	1	106	1	106					25,000	25,000		
Harbor tugs.....	2	126	2	126					44,500	44,500		
No traffic report.....	2	956	1	73			1	883	92,000	12,000		80,000
Oregon, Oregon.....	41	3,172	41	3,172					284,100	284,100		
Passenger and freight.....	33	2,897	33	2,897					247,600	247,600		
Fish.....	5	185	5	185					24,000	24,000		
Harbor tugs.....	1	14	1	14					2,000	2,000		
No traffic report.....	2	76	2	76					10,500	10,500		
Willamette, Oregon.....	96	44,404	91	25,471			5	18,933	3,850,100	1,307,100		2,543,000
Passenger and freight.....	62	40,391	60	22,091			2	18,300	3,606,300	1,141,300		2,465,000
Ferry.....	14	1,747	13	1,332			1	415	116,200	70,200		40,000
Fish.....	3	79	3	79					20,000	20,000		
Harbor tugs.....	4	244	2	26			2	218	40,700	2,700		38,000
No traffic report.....	13	1,943	13	1,943					66,900	66,900		

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY LOCALITIES—Continued.

STEAMERS—Continued.

CLASSES AND CUSTOMS DISTRICTS.	Total number.	Total tonnage.	NUMBER AND TONNAGE BY MATERIALS OF CONSTRUCTION.						VALUATION BY MATERIALS OF CONSTRUCTION.			
			Wood.		Composite.		Iron and steel.		Total valuation.	Wood.	Composite.	Iron and steel.
			Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.				
Puget sound, Washington	115	13,208	114	13,047			1	161	\$1,241,350	\$1,201,350		\$40,000
Passenger and freight	93	10,642	92	10,481			1	161	975,850	935,850		40,000
Ferry	2	296	2	296					45,000	45,000		
Fish	1	13	1	13					1,500	1,500		
Harbor tugs	9	1,346	9	1,346					179,000	179,000		
Yachts	2	45	2	45					4,000	4,000		
No traffic report	8	866	8	866					36,000	36,000		

SAILING VESSELS.

Total for California	697	162,946	695	161,740	1	209	1	997	5,753,975	5,703,975	\$10,000	40,000
San Diego, California	21	461	21	461					36,975	36,975		
Freight	7	222	7	222					20,350	20,350		
Fish	2	31	2	31					2,625	2,625		
Pilot boats	1	20	1	20					3,000	3,000		
Yachts	7	101	7	101					8,500	8,500		
No traffic report	4	87	4	87					2,500	2,500		
Wilmington, California	13	694	13	694					37,400	37,400		
Freight	8	588	8	588					27,400	27,400		
Pilot boats	1	8	1	8					2,500	2,500		
Yachts	4	98	4	98					7,500	7,500		
San Francisco, California	649	158,519	647	157,313	1	209	1	997	5,434,100	5,384,100	10,000	40,000
Freight	549	146,024	547	145,718	1	200	1	997	4,948,150	4,898,150	10,000	40,000
Fish	40	5,866	40	5,866					239,900	239,900		
Pilot boats	4	230	4	230					24,500	24,500		
Yachts	13	405	13	405					52,800	52,800		
No traffic report	43	5,094	43	5,094					168,750	168,750		
Humboldt, California	14	3,272	14	3,272					245,500	245,500		
Freight	13	3,091	13	3,091					241,000	241,000		
No traffic report	1	181	1	181					4,500	4,500		
Total for Oregon	43	2,776	43	2,776					97,065	97,065		
Southern district Oregon, Oregon:												
Freight	1	90	1	90					8,000	8,000		
Oregon, Oregon	36	690	36	690					50,080	50,080		
Freight	14	220	14	220					10,350	10,350		
Fish	10	137	10	137					12,730	12,730		
Pilot boats	2	141	2	141					19,000	19,000		
No traffic report	10	192	10	192					8,000	8,000		
Willamette, Oregon	6	1,996	6	1,996					38,985	38,985		
Freight	3	1,712	3	1,712					35,035	35,035		
No traffic report	3	284	3	284					3,950	3,950		
Puget sound, Washington	82	42,358	82	42,358					864,530	864,530		
Freight	52	41,631	52	41,631					822,055	822,055		
Fish	8	338	8	338					25,700	25,700		
Pilot boats	1	19	1	19					700	700		
Yachts	1	8	1	8					500	500		
No traffic report	20	362	20	362					15,575	15,575		

TRAFFIC OPERATIONS.

TABLE 7.—TRAFFIC IN GENERAL—TRIPS, MILES COVERED, PASSENGERS CARRIED, AND TONS OF FREIGHT MOVED BY ALL OPERATING CRAFT ON THE PACIFIC COAST IN 1889, EXCLUSIVE OF FISHING VESSELS NOT ENGAGED IN THE TRANSPORTATION OF FISHING PRODUCTS AS FREIGHT.

CUSTOMS DISTRICTS.	ALL CRAFT.				STEAMERS.				SAILING VESSELS.			UNRIGGED CRAFT.
	Trips.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Passengers.	Trips.	Miles.	Freight. (Tons.)	Freight. (Tons.)
Total	672,070	12,273,515	8,818,363	4,019,329	633,684	6,766,160	5,741,940	4,019,329	38,986	5,597,355	2,761,826	314,597
California.....	236,216	8,239,608	5,148,940	825,177	199,917	3,323,122	2,684,383	825,177	36,290	4,916,486	2,401,503	62,964
San Diego	39,224	59,141	35,384	545,558	39,158	43,807	20	545,558	66	15,274	2,300	33,064
Wilmington	639	75,188	152,297	12,305	410	48,752	144,726	12,305	229	26,436	7,571	.....
San Francisco	192,011	7,979,209	4,799,553	242,354	150,843	3,207,096	2,420,955	242,354	35,168	4,772,113	2,351,598	27,000
Humboldt	4,342	126,070	161,706	24,960	3,506	23,407	118,682	24,960	826	102,663	40,124	2,900
Oregon	390,704	1,848,497	1,027,017	2,698,503	389,096	1,789,435	905,677	2,698,503	1,698	59,062	34,050	87,890
Southern Oregon...	6,727	107,142	178,275	33,860	6,706	98,222	119,499	33,860	21	8,920	2,916	55,860
Yaquina	4,000	68,158	31,583	15,722	4,000	68,158	31,583	15,722	.....	.....	.....	(b)
Oregon	15,256	295,818	263,227	98,006	13,692	276,076	242,130	98,006	1,564	19,742	21,097	(b)
Willamette	364,721	1,377,379	554,532	2,550,915	364,698	1,346,979	512,465	2,550,915	23	30,400	10,037	32,030
Washington — Puget sound.	45,750	2,185,410	2,641,800	495,649	44,671	1,653,603	2,151,880	495,649	1,079	531,807	326,183	163,743

a Includes unriggered craft.

b Included in steamers.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT TRAFFIC BY COMMODITIES—PRINCIPAL COMMODITIES IN TONS OF THE TOTAL FREIGHT MOVED BY ALL OPERATING CRAFT ON THE PACIFIC COAST IN 1889.

ALL CRAFT.

CUSTOMS DISTRICTS.	Total of all commodities.	Agricultural products.	Coal.	Mines and quarries.	Lumber and other forest products.	Animal products including fish.	Manufactures and general merchandise.
Total for all craft.....	8,818,363	1,152,100	1,075,600	522,497	4,239,656	74,509	1,754,001

STEAMERS.

Total	5,741,940	851,041	407,635	305,551	3,023,547	30,706	1,123,400
California.....	2,084,383	754,423	355,726	192,333	616,045	12,275	753,581
San Diego	20					20	
Wilmington	144,726	148	67,235	50,000	8,620		18,723
San Francisco	2,420,955	753,683	288,491	98,032	537,381	12,176	731,192
Humboldt	118,682	592		44,301	70,044	79	3,666
Oregon.....	905,677	50,382	50,872	62,034	590,032	12,660	139,697
Southern Oregon.....	119,499	940	25	502	113,877	150	4,005
Yaquina	31,583	14,762			881	1,534	14,406
Oregon.....	242,130	5,476	160	5,380	201,407	2,972	26,735
Willamette	512,465	29,204	50,687	56,152	273,867	8,004	94,551
Washington—Puget sound	2,151,880	46,236	1,037	51,184	1,817,470	5,771	230,182

SAILING VESSELS.

Total	2,701,826	262,559	627,995	214,946	1,154,325	43,803	458,198
California.....	2,401,593	253,325	560,842	210,006	921,153	37,590	403,677
San Diego	3,300			120		102	2,078
Wilmington	7,571			10	7,445	80	36
San Francisco	2,351,598	253,225	560,842	208,333	877,331	37,408	405,459
Humboldt	40,124	100		1,543	36,377		2,104
Oregon.....	34,050	912		42	17,386	4,133	11,577
Southern Oregon.....	2,916				2,466		450
Oregon	21,097	597		42	14,481	3,433	2,544
Willamette	10,037	315			439	700	8,583
Washington—Puget sound	326,183	8,322	58,153	4,898	215,786	2,080	36,944

UNRIGGED CRAFT.

Total	814,597	38,500	39,970	2,000	61,784		172,343
San Diego, California	33,064		19,790		13,274		
San Francisco, California	27,000	18,500			8,500		
Humboldt, California	2,900				900		2,000
Southern Oregon, Oregon	55,860	20,000			25,860		10,000
Willamette, Oregon	32,030		17,030		8,000		7,000
Puget sound, Washington	163,743		3,150	2,000	5,250		153,343

TRANSPORTATION ON THE PACIFIC COAST.

195

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—AMOUNT OF EACH COMMODITY MOVED WITHIN OR BETWEEN WELL DEFINED TRAFFIC DISTRICTS BY ALL OPERATING CRAFT OF EACH CUSTOMS DISTRICT. (a)

ALL CRAFT.

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		8,818,363	1,075,600	4,239,656	522,497	1,152,100	74,509	1,754,001

SAN DIEGO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

1 Southern California coast.....	1 Southern California coast.....	33,084	19,790	13,274			20	
----------------------------------	----------------------------------	--------	--------	--------	--	--	----	--

SAN DIEGO, CALIFORNIA (SAILING VESSELS).

Total		2,300			120		102	2,078
2 San Francisco bay and rivers	7 Foreign.....	80			80			
1 Southern California coast.....	1 Southern California coast.....	1,823					90	1,733
Do.....	7 Foreign.....	225						225
7 Foreign.....	1 Southern California coast.....	52			40		12	
Do.....	7 Foreign.....	120						120

SAN DIEGO, CALIFORNIA (ALL CRAFT).

Total		35,384	19,790	13,274	120		122	2,078
2 San Francisco bay and rivers.....	7 Foreign.....	80			80			
1 Southern California coast.....	1 Southern California coast.....	34,907	19,790	13,274			110	1,733
Do.....	7 Foreign.....	225						225
7 Foreign.....	1 Southern California coast.....	52			40		12	
Do.....	7 Foreign.....	120						120

WILMINGTON, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

Total		144,726	67,235	8,620	50,000	148		18,723
4 Oregon coast.....	1 Southern California coast.....	8,768		8,620		148		
1 Southern California coast.....	4 Oregon coast.....	27						27
Do.....	1 Southern California coast.....	135,931	67,235		50,000			18,696

WILMINGTON, CALIFORNIA (SAILING VESSELS).

Total		7,571		7,445	10		80	36
6 Puget sound and Washington	1 Southern California coast.....	1,400		1,400				
4 Oregon coast.....	do	1,450		1,450				
3 Northern California coast.....	do	4,500		4,500				
1 Southern California coast.....	do	221		95	10		80	36

WILMINGTON, CALIFORNIA (ALL CRAFT).

Total		152,297	67,235	16,065	50,010	148	80	18,759
6 Puget sound and Washington	1 Southern California coast.....	1,400		1,400				
4 Oregon coast.....	do	10,218		10,070		148		
3 Northern California coast.....	do	4,500		4,500				
1 Southern California coast.....	do	136,152	67,235	95	50,010		80	18,732
Do.....	4 Oregon coast.....	27						27

a See page 7.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		2,447,955	288,491	545,881	98,032	772,183	12,176	731,192
6 Puget sound and Washington	2 San Francisco bay and rivers	92,125	67,853	24,272				
Do	1 Southern California coast	1,730		1,212			518	
4 Oregon coast	2 San Francisco bay and rivers	81,208	50,000	28,447		2,761		
Do	1 Southern California coast	1,208		988		220		
3 Northern California coast	3 Northern California coast	47,074		1,024	45,000		1,050	
Do	2 San Francisco bay and rivers	264,047		256,283		6,418	1,346	
Do	1 Southern California coast	48,803		48,294				509
Do	7 Foreign	941		941				
2 San Francisco bay and rivers	6 Puget sound and Washington	13,969						13,969
Do	4 Oregon coast	11,503						11,503
Do	3 Northern California coast	32,280						32,280
Do	2 San Francisco bay and rivers	1,222,223	56,981	143,933	22,024	641,023	6,150	352,112
Do	1 Southern California coast	319,491	43,700	3,675				272,116
Do	7 Foreign	19,014						19,014
Do	9 Alaska and Bering sea	18,897	177					18,720
1 Southern California coast	2 San Francisco bay and rivers	161,275		36,416	15,318	109,041	500	
Do	1 Southern California coast	12,000				12,000		
Do	7 Foreign	3,370	270	200		682		2,218
7 Foreign	6 Puget sound and Washington	15,600			15,600			
Do	5 Columbia and Willamette rivers	4,245	4,245					
Do	2 San Francisco bay and rivers	73,181	64,236	188				8,757
Do	1 Southern California coast	35				25	10	
Do	9 Alaska and Bering sea	1,029	1,029					
9 Alaska and Bering sea	2 San Francisco bay and rivers	2,602					2,602	
Do	9 Alaska and Bering sea	125		8	90	13		14

SAN FRANCISCO, CALIFORNIA (SAILING VESSELS).

Total		2,351,598	569,842	877,331	208,333	253,225	37,408	405,159
6 Puget sound and Washington	6 Puget sound and Washington	2,547	1,651					896
Do	5 Columbia and Willamette rivers	905		905				
Do	3 Northern California coast	321		321				
Do	2 San Francisco bay and rivers	415,633	238,041	177,279				313
Do	1 Southern California coast	36,632	3,647	32,985				
Do	7 Foreign	61,764		61,764				
Do	9 Alaska and Bering sea	800		800				
5 Columbia and Willamette rivers	3 Northern California coast	2,445		2,445				
Do	2 San Francisco bay and rivers	40,515		39,838				677
Do	1 Southern California coast	9,493		9,461		32		
Do	7 Foreign	2,847		2,847				
4 Oregon coast	2 San Francisco bay and rivers	101,632		100,268			945	419
Do	1 Southern California coast	5,588		5,588				
Do	7 Foreign	1,160		1,160				
3 Northern California coast	6 Puget sound and Washington	485		485				
Do	5 Columbia and Willamette rivers	635		635				
Do	2 San Francisco bay and rivers	246,024	3,375	239,439		2,384	126	700
Do	1 Southern California coast	37,960	1,125	36,825				10
Do	7 Foreign	7,383		7,383				
2 San Francisco bay and rivers	6 Puget sound and Washington	27,348						27,348
Do	5 Columbia and Willamette rivers	11,905						11,905
Do	4 Oregon coast	10,589	56					10,533
Do	3 Northern California coast	7,423						7,423
Do	2 San Francisco bay and rivers	820,828	112,459	128,654	200,784	233,466	7,918	137,547
Do	1 Southern California coast	1,476		1,476				
Do	7 Foreign	108,378	3,280	6,236		14,578		84,284
Do	9 Alaska and Bering sea	28,370	3,685	1,245				23,440
1 Southern California coast	6 Puget sound and Washington	165						165
Do	5 Columbia and Willamette rivers	750						750
Do	2 San Francisco bay and rivers	33						33
Do	1 Southern California coast	535					510	25
Do	7 Foreign	1,125		600	400			125
Do	9 Alaska and Bering sea	638						638
7 Foreign	6 Puget sound and Washington	2,758	2,016					742
Do	2 San Francisco bay and rivers	224,664	124,365	6,054	4,013	2,765	1,005	85,862
Do	1 Southern California coast	33,685	33,685					
Do	7 Foreign	38,658	24,916	12,612			230	900
Do	8 Atlantic ports	3,136			3,136			
Do	9 Alaska and Bering sea	1,500	1,500					
8 Atlantic ports	2 San Francisco bay and rivers	5,550						5,550
Do	7 Foreign	3,560						3,560
9 Alaska and Bering sea	6 Puget sound and Washington	1,820					1,820	
Do	2 San Francisco bay and rivers	41,734	16,041	26			24,053	1,614
Do	7 Foreign	201					201	

TRANSPORTATION ON THE PACIFIC COAST.

197

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

SAN FRANCISCO, CALIFORNIA (ALL CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		4,799,553	858,333	1,423,212	306,365	1,025,408	49,584	1,136,651
6 Puget sound and Washington	6 Puget sound and Washington	2,547	1,651					896
Do	5 Columbia and Willamette rivers	905		905				
Do	3 Northern California coast	321		321				
Do	2 San Francisco bay and rivers	507,758	305,894	201,551				313
Do	1 Southern California coast	38,362	3,647	34,197			518	
Do	7 Foreign	61,764		61,764				
Do	9 Alaska and Bering sea	800		800				
5 Columbia and Willamette rivers	3 Northern California coast	2,445		2,445				
Do	2 San Francisco bay and rivers	40,515		39,838				677
Do	1 Southern California coast	9,493		9,461		32		
Do	7 Foreign	2,847		2,847				
4 Oregon coast	2 San Francisco bay and rivers	182,840	50,000	128,715		2,781	945	419
Do	1 Southern California coast	6,796		6,576		220		
Do	7 Foreign	1,160		1,160				
3 Northern California coast	6 Puget sound and Washington	485		485				
Do	5 Columbia and Willamette rivers	635		635				
Do	3 Northern California coast	47,074		1,024	45,000		1,050	
Do	2 San Francisco bay and rivers	510,071	3,375	495,722		8,802	1,472	700
Do	1 Southern California coast	86,763	1,125	85,119				519
Do	7 Foreign	8,324		8,324				
2 San Francisco bay and rivers	6 Puget sound and Washington	41,317						41,317
Do	5 Columbia and Willamette rivers	11,905						11,905
Do	4 Oregon coast	22,092	56					22,036
Do	3 Northern California coast	39,683						39,683
Do	2 San Francisco bay and rivers	2,043,051	199,440	272,587	222,808	874,489	14,068	489,859
Do	1 Southern California coast	320,967	43,700	5,151				272,116
Do	7 Foreign	127,392	3,280	6,236		14,578		103,298
Do	9 Alaska and Bering sea	47,267	3,862	1,245				42,160
1 Southern California coast	6 Puget sound and Washington	185						185
Do	5 Columbia and Willamette rivers	750						750
Do	2 San Francisco bay and rivers	161,308		36,416	15,318	109,041	500	33
Do	1 Southern California coast	12,535				12,000	510	25
Do	7 Foreign	4,495	270	800	400	682		2,343
Do	9 Alaska and Bering sea	638						638
7 Foreign	6 Puget sound and Washington	18,358	2,016		15,600			742
Do	5 Columbia and Willamette rivers	4,245	4,245					
Do	2 San Francisco bay and rivers	297,845	188,601	6,242	4,013	2,785	1,605	94,019
Do	1 Southern California coast	33,720	33,685			25	10	
Do	7 Foreign	38,658	24,916	12,612			230	900
Do	8 Atlantic ports	3,136			3,136			
Do	9 Alaska and Bering sea	2,529	2,529					
8 Atlantic ports	2 San Francisco bay and rivers	5,550						5,550
Do	7 Foreign	3,560						3,560
9 Alaska and Bering sea	6 Puget sound and Washington	1,820					1,820	
Do	2 San Francisco bay and rivers	44,336	16,041	26			26,655	1,614
Do	7 Foreign	201					201	
Do	9 Alaska and Bering sea	125		8	90	13		14

HUMBOLDT, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).

3 Northern California coast	3 Northern California coast	121,582		70,944	44,301	592	79	5,666
-----------------------------------	-----------------------------------	---------	--	--------	--------	-----	----	-------

HUMBOLDT, CALIFORNIA (SAILING VESSELS).

Total		40,124		36,377	1,543	100		2,104
6 Puget sound and Washington	2 San Francisco bay and rivers	4,781		4,781				
5 Columbia and Willamette rivers	do	400		400				
Do	1 Southern California coast	625		625				
4 Oregon coast	2 San Francisco bay and rivers	1,608		1,608				
3 Northern California coast	6 Puget sound and Washington	455		455				
Do	5 Columbia and Willamette rivers	625		625				
Do	3 Northern California coast	5,880		5,780	100			
Do	2 San Francisco bay and rivers	11,603		11,603				
Do	1 Southern California coast	7,520		7,520				
Do	7 Foreign	2,065		2,065				
2 San Francisco bay and rivers	6 Puget sound and Washington	100						100
Do	5 Columbia and Willamette rivers	100						100
Do	3 Northern California coast	200						200
Do	7 Foreign	1,887		915				972
7 Foreign	2 San Francisco bay and rivers	2,275			1,543			732

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

HUMBOLDT, CALIFORNIA (ALL CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		161,706		107,321	45,844	692	79	7,770
6 Puget sound and Washington	2 San Francisco bay and rivers	4,781		4,781				
5 Columbia and Willamette rivers	do	400		400				
Do	1 Southern California coast	625		625				
4 Oregon coast	2 San Francisco bay and rivers	1,608		1,608				
3 Northern California coast	6 Puget sound and Washington	455		455				
Do	5 Columbia and Willamette rivers	625		625				
Do	3 Northern California coast	127,462		76,724	44,301	692	79	5,666
Do	2 San Francisco bay and rivers	11,603		11,603				
Do	1 Southern California coast	7,520		7,520				
Do	7 Foreign	2,065		2,065				
2 San Francisco bay and rivers	6 Puget sound and Washington	100						100
Do	5 Columbia and Willamette rivers	100						100
Do	3 Northern California coast	200						200
Do	7 Foreign	1,887		915				972
7 Foreign	2 San Francisco bay and rivers	2,275			1,543			732

SOUTHERN DISTRICT OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).

4 Oregon coast	4 Oregon coast	175,359	25	139,737	502	20,940	150	14,095
----------------------	----------------------	---------	----	---------	-----	--------	-----	--------

SOUTHERN DISTRICT OREGON, OREGON (SAILING VESSELS).

Total		2,916		2,466				450
4 Oregon coast	2 San Francisco bay and rivers	2,204		2,204				
Do	1 Southern California coast	262		262				
2 San Francisco bay and rivers	4 Oregon coast	450						450

SOUTHERN DISTRICT OREGON, OREGON (ALL CRAFT).

Total		178,275	25	142,203	502	20,940	150	14,455
4 Oregon coast	4 Oregon coast	175,359	25	139,737	502	20,940	150	14,095
Do	2 San Francisco bay and rivers	2,204		2,204				
Do	1 Southern California coast	262		262				
2 San Francisco bay and rivers	4 Oregon coast	450						450

YACUINA, OREGON (STEAMERS AND UNRIGGED CRAFT).

Total		31,583		881		14,762	1,534	14,406
5 Columbia and Willamette rivers	4 Oregon coast	1,343		83		100		1,160
4 Oregon coast	5 Columbia and Willamette rivers	1,084		184		85	825	
Do	4 Oregon coast	2,453		494			709	1,250
Do	2 San Francisco bay and rivers	4,603		120				4,483
2 San Francisco bay and rivers	4 Oregon coast	22,090				14,577		7,513

OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).

Total		242,130	160	201,407	5,380	5,476	2,972	26,735
6 Puget sound and Washington	6 Puget sound and Washington	100,464		94,781		1,221	563	3,899
Do	5 Columbia and Willamette rivers	427					427	
Do	4 Oregon coast	400						400
5 Columbia and Willamette rivers	6 Puget sound and Washington	315						315
Do	5 Columbia and Willamette rivers	104,547	160	77,267	4,420	3,180	1,962	17,538
Do	4 Oregon coast	250						250
Do	2 San Francisco bay and rivers	1,805		1,845		480		
Do	1 Southern California coast	1,300		1,000		300		
4 Oregon coast	6 Puget sound and Washington	212						212
Do	4 Oregon coast	28,930		27,014	960	315		641
2 San Francisco bay and rivers	5 Columbia and Willamette rivers	2,288						2,288
1 Southern California coast	do	1,192						1,192

TRANSPORTATION ON THE PACIFIC COAST.

199

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

OREGON, OREGON (SAILING VESSELS).

INTERDISTRICT MOVEMENT.			COMMODITIES (IN TONS).					
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		21,097		14,481	42	597	3,433	2,544
6 Puget sound and Washington	6 Puget sound and Washington	2,576					2,551	25
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	18,503		14,478	40	597	877	2,511
Do	4 Oregon coast	5		3	2			
4 Oregon coast	5 Columbia and Willamette rivers	8						8
7 Foreign	9 Alaska and Bering sea	5					5	

OREGON, OREGON (ALL CRAFT).

Total		263,227	180	215,888	5,422	6,073	6,405	29,279
6 Puget sound and Washington	6 Puget sound and Washington	103,040		94,781		1,221	3,114	3,924
Do	5 Columbia and Willamette rivers	427					427	
Do	4 Oregon coast	400						400
5 Columbia and Willamette rivers	6 Puget sound and Washington	315						315
Do	5 Columbia and Willamette rivers	123,050	180	91,745	4,480	3,777	2,859	20,049
Do	4 Oregon coast	255		3	2			250
Do	2 San Francisco bay and rivers	1,805		1,345		460		
Do	1 Southern California coast	1,300		1,003		300		
4 Oregon coast	6 Puget sound and Washington	212						212
Do	5 Columbia and Willamette rivers	8						8
Do	4 Oregon coast	28,930		27,014	980	315		641
2 San Francisco bay and rivers	5 Columbia and Willamette rivers	2,288						2,288
1 Southern California coast	do	1,192						1,192
7 Foreign	9 Alaska and Bering sea	5					5	

WILLAMETTE, OREGON (STEAMERS AND UNRIGGED CRAFT).

Total		544,495	67,717	281,867	56,152	29,204	8,004	101,551
6 Puget sound and Washington	5 Columbia and Willamette rivers	800						800
Do	2 San Francisco bay and rivers	52,186	50,652	180				1,354
Do	7 Foreign	14,466						14,466
5 Columbia and Willamette rivers	6 Puget sound and Washington	7,381	30	525		441		6,385
Do	5 Columbia and Willamette rivers	467,230	17,035	278,735	56,152	28,763	8,004	78,541
Do	4 Oregon coast	2,427		2,427				
2 San Francisco bay and rivers	6 Puget sound and Washington	5						5

WILLAMETTE, OREGON (SAILING VESSELS).

Total		10,037		439		315	700	8,583
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	25						25
Do	7 Foreign	439		439				
2 San Francisco bay and rivers	do	4,030						4,030
Do	9 Alaska and Bering sea	1,340						1,340
7 Foreign	5 Columbia and Willamette rivers	1,203				315		888
Do	2 San Francisco bay and rivers	2,300						2,300
9 Alaska and Bering sea	do	700					700	

WILLAMETTE, OREGON (ALL CRAFT).

Total		554,532	67,717	282,306	56,152	29,519	8,704	110,134
6 Puget sound and Washington	5 Columbia and Willamette rivers	800						800
Do	2 San Francisco bay and rivers	52,186	50,652	180				1,354
Do	7 Foreign	14,466						14,466
5 Columbia and Willamette rivers	6 Puget sound and Washington	7,381	30	525		441		6,385
Do	5 Columbia and Willamette rivers	467,255	17,035	278,745	56,152	28,763	8,004	78,566
Do	4 Oregon coast	2,427		2,427				
Do	7 Foreign	439		439				
2 San Francisco bay and rivers	6 Puget sound and Washington	5						5
Do	7 Foreign	4,030						4,030
Do	9 Alaska and Bering sea	1,340						1,340
7 Foreign	5 Columbia and Willamette rivers	1,203				315		888
Do	2 San Francisco bay and rivers	2,300						2,300
9 Alaska and Bering sea	do	700					700	

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 9.—INTERDISTRICT MOVEMENT (FREIGHT)—Continued.

PUGET SOUND, WASHINGTON (STEAMERS AND UNRIGGED CRAFT).

INTERDISTRICT MOVEMENT.		COMMODITIES (IN TONS).						
From—	To—	Total.	Coal.	Lumber.	Mines and quarries.	Agricultural.	Animal products including fish.	All other products.
Total		2,315,623	4,187	1,822,720	53,184	46,236	5,771	383,525
6 Puget sound and Washington	6 Puget sound and Washington	2,315,119	3,883	1,822,720	53,184	46,236	5,771	383,325
Do	7 Foreign	40						40
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	100						100
Do	4 Oregon coast	60						60
7 Foreign	6 Puget sound and Washington	304	304					

PUGET SOUND, WASHINGTON (SAILING VESSELS).

Total		328,183	58,153	215,786	4,898	8,322	2,080	36,944
6 Puget sound and Washington	6 Puget sound and Washington	15,117	119	4,038	4,888	4,026	181	1,865
Do	2 San Francisco bay and rivers	208,759	40,909	167,850				
Do	1 Southern California coast	7,833	3,360	4,473				
Do	7 Foreign	38,968	2,934	36,034				
3 Northern California coast	2 San Francisco bay and rivers	760		760				
Do	7 Foreign	2,400		2,400				
2 San Francisco bay and rivers	6 Puget sound and Washington	22,628	21		10	2,545		20,052
Do	7 Foreign	4,654	728	175		1,751		2,000
Do	9 Alaska and Bering sea	750						750
7 Foreign	6 Puget sound and Washington	56		56				
Do	2 San Francisco bay and rivers	17,460	4,280				923	12,277
Do	1 Southern California coast	5,822	5,822					
9 Alaska and Bering sea	6 Puget sound and Washington	8					8	
Do	2 San Francisco bay and rivers	910					910	
Do	9 Alaska and Bering sea	58					58	

PUGET SOUND, WASHINGTON (ALL CRAFT).

Total		2,641,806	62,340	2,038,506	58,082	54,558	7,851	420,469
6 Puget Sound and Washington	6 Puget sound and Washington	2,330,236	4,002	1,826,758	58,072	50,262	5,952	385,190
Do	2 San Francisco bay and rivers	208,759	40,909	167,850				
Do	1 Southern California coast	7,833	3,360	4,473				
Do	7 Foreign	39,008	2,934	36,034				40
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers	100						100
Do	4 Oregon coast	60						60
3 Northern California coast	2 San Francisco bay and rivers	760		760				
Do	7 Foreign	2,400		2,400				
2 San Francisco bay and rivers	6 Puget sound and Washington	22,628	21		10	2,545		20,052
Do	7 Foreign	4,654	728	175		1,751		2,000
Do	9 Alaska and Bering sea	750						750
7 Foreign	6 Puget sound and Washington	360	304	56				
Do	2 San Francisco bay and rivers	17,460	4,280				923	12,277
Do	1 Southern California coast	5,822	5,822					
9 Alaska and Bering sea	6 Puget sound and Washington	8					8	
Do	2 San Francisco bay and rivers	910					910	
Do	9 Alaska and Bering sea	58					58	

TRANSPORTATION ON THE PACIFIC COAST.

201

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT (MILEAGE)—NUMBER OF MILES COVERED IN THE TRANSPORTATION OF 8,818,363 TONS OF FREIGHT BY THE OPERATING CRAFT OF EACH CUSTOMS DISTRICT, IN THEIR MOVEMENT WITHIN OR BETWEEN CERTAIN TRAFFIC DISTRICTS. (a)

ALL CRAFT.			SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT)—Continued.		
From—	To—	Miles.	From—	To—	Miles.
Total		12,273,515	5 Columbia and Willamette rivers..	2 San Francisco bay and rivers	39,833
SAN DIEGO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			Do	9 Alaska and Bering sea	24,882
1 Southern California coast.....	1 Southern California coast	43,867	4 Oregon coast	2 San Francisco bay and rivers	49,995
SAN DIEGO, CALIFORNIA (SAILING VESSELS).			Do	1 Southern California coast	1,542
Total		15,274	3 Northern California coast.....	3 Northern California coast	10,720
2 San Francisco bay and rivers..	7 Foreign	3,200	Do	2 San Francisco bay and rivers	170,507
1 Southern California coast.....	1 Southern California coast	5,688	Do	1 Southern California coast	100,587
Do	7 Foreign	3,418	Do	7 Foreign	1,716
7 Foreign	1 Southern California coast	1,000	2 San Francisco bay and rivers ..	6 Puget sound and Washington	89,707
Do	7 Foreign	1,968	Do	4 Oregon coast	49,995
SAN DIEGO, CALIFORNIA (ALL CRAFT).			Do	3 Northern California coast	170,508
Total		59,141	Do	2 San Francisco bay and rivers	1,637,420
2 San Francisco bay and rivers..	7 Foreign	3,200	Do	1 Southern California coast	131,013
1 Southern California coast.....	1 Southern California coast	49,555	Do	7 Foreign	111,267
Do	7 Foreign	3,418	Do	8 Atlantic ports	13,250
7 Foreign	1 Southern California coast	1,000	Do	9 Alaska and Bering sea	73,702
Do	7 Foreign	1,968	1 Southern California coast.....	2 San Francisco bay and rivers	131,013
WILMINGTON, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			Do	1 Southern California coast	2,255
Total		48,752	Do	7 Foreign	16,696
4 Oregon coast	1 Southern California coast	17,305	7 Foreign	6 Puget sound and Washington	23,658
1 Southern California coast.....	4 Oregon coast	17,305	Do	5 Columbia and Willamette rivers ..	25,480
Do	1 Southern California coast	14,142	Do	2 San Francisco bay and rivers	111,268
WILMINGTON, CALIFORNIA (SAILING VESSELS).			Do	1 Southern California coast	16,696
Total		28,436	Do	9 Alaska and Bering sea	4,400
6 Puget sound and Washington..	1 Southern California coast	3,820	9 Alaska and Bering sea.....	2 San Francisco bay and rivers	73,763
4 Oregon coast	do	4,446	Do	9 Alaska and Bering sea	7,516
3 Northern California coast	do	10,800	SAN FRANCISCO, CALIFORNIA (SAILING VESSELS).		
1 Southern California coast.....	do	7,370	Total		4,772,113
WILMINGTON, CALIFORNIA (ALL CRAFT).			6 Puget sound and Washington ..	6 Puget sound and Washington	724
Total		75,188	Do	5 Columbia and Willamette rivers ..	1,020
6 Puget sound and Washington..	1 Southern California coast	3,820	Do	3 Northern California coast	1,422
4 Oregon coast	do	21,751	Do	2 San Francisco bay and rivers	310,222
3 Northern California coast.....	do	10,800	Do	1 Southern California coast	59,370
1 Southern California coast.....	do	21,512	Do	7 Foreign	228,285
Do	4 Oregon coast	17,305	Do	9 Alaska and Bering sea	8,715
SAN FRANCISCO, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			5 Columbia and Willamette rivers..	5 Columbia and Willamette rivers ..	298
Total		3,207,096	Do	3 Northern California coast	1,094
6 Puget sound and Washington..	6 Puget sound and Washington	2,234	Do	2 San Francisco bay and rivers	34,207
Do	5 Columbia and Willamette rivers ..	3,420	Do	1 Southern California coast	12,262
Do	3 Northern California coast	1,208	Do	7 Foreign	18,282
Do	2 San Francisco bay and rivers	89,706	Do	9 Alaska and Bering sea	1,018
Do	1 Southern California coast	4,335	4 Oregon coast	2 San Francisco bay and rivers	99,648
Do	9 Alaska and Bering sea	16,744	Do	1 Southern California coast	27,646
			Do	7 Foreign	9,185
			3 Northern California coast.....	6 Puget sound and Washington	1,422
			Do	5 Columbia and Willamette rivers ..	1,095
			Do	2 San Francisco bay and rivers	152,521
			Do	1 Southern California coast	88,262
			Do	7 Foreign	41,896
			2 San Francisco bay and rivers ..	6 Puget sound and Washington	310,222
			Do	5 Columbia and Willamette rivers ..	34,206
			Do	4 Oregon coast	99,649
			Do	3 Northern California coast	152,521
			Do	2 San Francisco bay and rivers	889,469
			Do	1 Southern California coast	3,472
			Do	7 Foreign	625,692
			Do	9 Alaska and Bering sea	154,968
			1 Southern California coast.....	6 Puget sound and Washington	59,370
			Do	5 Columbia and Willamette rivers ..	12,262
			Do	2 San Francisco bay and rivers	3,472
			Do	1 Southern California coast	2,460
			Do	7 Foreign	42,260
			Do	9 Alaska and Bering sea	2,400
			7 Foreign	6 Puget sound and Washington	228,286
			Do	2 San Francisco bay and rivers	625,692
			Do	1 Southern California coast	42,260
			Do	7 Foreign	166,363
			Do	8 Atlantic ports	16,155
			Do	9 Alaska and Bering sea	2,750
			8 Atlantic ports	2 San Francisco bay and rivers	17,000
			Do	7 Foreign	16,155
			9 Alaska and Bering sea.....	6 Puget sound and Washington	8,715
			Do	2 San Francisco bay and rivers	154,968
			Do	7 Foreign	2,750

a See page 7 and Table 9.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT¹ (MILEAGE)—Continued.

SAN FRANCISCO, CALIFORNIA (ALL CRAFT).			HUMBOLDT, CALIFORNIA (ALL CRAFT).		
From—	To—	Miles.	From—	To—	Miles.
Total		7,979,209	Total		126,070
6 Puget sound and Washington ..	6 Puget sound and Washington ..	2,958	6 Puget sound and Washington ..	2 San Francisco bay and rivers ..	4,600
Do	5 Columbia and Willamette rivers ..	4,440	Do	1 Southern California coast ..	2,458
Do	3 Northern California coast ..	2,630			
Do	2 San Francisco bay and rivers ..	399,028	5 Columbia and Willamette rivers ..	2 San Francisco bay and rivers ..	555
Do	1 Southern California coast ..	63,705	Do	1 Southern California coast ..	1,015
Do	7 Foreign ..	228,285			
Do	9 Alaska and Bering sea ..	25,459	4 Oregon coast ..	2 San Francisco bay and rivers ..	3,030
5 Columbia and Willamette rivers ..	5 Columbia and Willamette rivers ..	298	3 Northern California coast ..	6 Puget sound and Washington ..	560
Do	3 Northern California coast ..	1,094	Do	5 Columbia and Willamette rivers ..	985
Do	2 San Francisco bay and rivers ..	74,040	Do	3 Northern California coast ..	31,237
Do	1 Southern California coast ..	12,262	Do	2 San Francisco bay and rivers ..	5,337
Do	7 Foreign ..	18,282	Do	1 Southern California coast ..	11,925
Do	9 Alaska and Bering sea ..	25,900	Do	7 Foreign ..	19,228
4 Oregon coast ..	2 San Francisco bay and rivers ..	149,643	2 San Francisco bay and rivers ..	6 Puget sound and Washington ..	4,600
Do	1 Southern California coast ..	29,188	Do	5 Columbia and Willamette rivers ..	555
Do	7 Foreign ..	9,185	Do	3 Northern California coast ..	5,337
3 Northern California coast ..	6 Puget sound and Washington ..	1,422	Do	7 Foreign ..	17,045
Do	5 Columbia and Willamette rivers ..	1,095	7 Foreign ..	2 San Francisco bay and rivers ..	17,045
Do	3 Northern California coast ..	10,720	Do	7 Foreign ..	358
Do	2 San Francisco bay and rivers ..	323,028			
Do	1 Southern California coast ..	188,849	SOUTHERN DISTRICT OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).		
Do	7 Foreign ..	43,612	4 Oregon coast ..	4 Oregon coast ..	98,222
2 San Francisco bay and rivers ..	6 Puget sound and Washington ..	399,929			
Do	5 Columbia and Willamette rivers ..	34,208	SOUTHERN OREGON, OREGON (SAILING VESSELS).		
Do	4 Oregon coast ..	149,644	Total		8,920
Do	3 Northern California coast ..	323,029	4 Oregon coast ..	2 San Francisco bay and rivers ..	3,660
Do	2 San Francisco bay and rivers ..	2,526,889	Do	1 Southern California coast ..	1,600
Do	1 Southern California coast ..	134,485	2 San Francisco bay and rivers ..	4 Oregon coast ..	3,660
Do	7 Foreign ..	736,959			
Do	8 Atlantic ports ..	13,250	SOUTHERN OREGON, OREGON (ALL CRAFT).		
Do	9 Alaska and Bering sea ..	228,730	Total		107,142
6 Southern California coast ..	6 Puget sound and Washington ..	59,370	4 Oregon coast ..	4 Oregon coast ..	98,222
Do	5 Columbia and Willamette rivers ..	12,262	Do	2 San Francisco bay and rivers ..	3,660
Do	2 San Francisco bay and rivers ..	134,485	Do	1 Southern California coast ..	1,600
Do	1 Southern California coast ..	4,715	2 San Francisco bay and rivers ..	4 Oregon coast ..	3,660
Do	7 Foreign ..	58,956			
Do	9 Alaska and Bering sea ..	2,400	YAQUINA, OREGON (STEAMERS AND UNRIGGED CRAFT).		
7 Foreign ..	6 Puget sound and Washington ..	251,944	Total		68,138
Do	5 Columbia and Willamette rivers ..	25,480	5 Columbia and Willamette rivers ..	4 Oregon coast ..	4,362
Do	2 San Francisco bay and rivers ..	736,960	4 Oregon coast ..	5 Columbia and Willamette rivers ..	4,362
Do	1 Southern California coast ..	58,956	Do	4 Oregon coast ..	27,514
Do	7 Foreign ..	166,363	Do	2 San Francisco bay and rivers ..	15,960
Do	8 Atlantic ports ..	16,155	2 San Francisco bay and rivers ..	4 Oregon coast ..	15,960
Do	9 Alaska and Bering sea ..	7,150			
8 Atlantic ports ..	2 San Francisco bay and rivers ..	17,000	OREGON, OREGON (STEAMERS AND UNRIGGED CRAFT).		
Do	7 Foreign ..	16,155	Total		276,076
9 Alaska and Bering sea ..	6 Puget sound and Washington ..	8,715	6 Puget sound and Washington ..	6 Puget sound and Washington ..	79,981
Do	2 San Francisco bay and rivers ..	228,731	Do	5 Columbia and Willamette rivers ..	3,675
Do	7 Foreign ..	2,750	Do	4 Oregon coast ..	9,048
Do	9 Alaska and Bering sea ..	7,516	5 Columbia and Willamette rivers ..	6 Puget sound and Washington ..	3,675
HUMBOLDT, CALIFORNIA (STEAMERS AND UNRIGGED CRAFT).			Do	5 Columbia and Willamette rivers ..	133,271
3 Northern California coast ..	3 Northern California coast ..	23,407	Do	4 Oregon coast ..	6,240
HUMBOLDT, CALIFORNIA (SAILING VESSELS).			Do	2 San Francisco bay and rivers ..	4,179
Total		102,663	Do	1 Southern California coast ..	7,370
6 Puget sound and Washington ..	2 San Francisco bay and rivers ..	4,600	4 Oregon coast ..	6 Puget sound and Washington ..	9,048
Do	1 Southern California coast ..	2,458	Do	4 Oregon coast ..	7,458
5 Columbia and Willamette rivers ..	2 San Francisco bay and rivers ..	555	2 San Francisco bay and rivers ..	5 Columbia and Willamette rivers ..	4,170
Do	1 Southern California coast ..	1,015	Southern California coast ..	do	7,370
4 Oregon coast ..	2 San Francisco bay and rivers ..	3,030	9 Alaska and Bering sea ..	9 Alaska and Bering sea ..	600
3 Northern California coast ..	6 Puget sound and Washington ..	560			
Do	5 Columbia and Willamette rivers ..	985			
Do	3 Northern California coast ..	7,830			
Do	2 San Francisco bay and rivers ..	5,337			
Do	1 Southern California coast ..	11,925			
Do	7 Foreign ..	19,228			
2 San Francisco bay and rivers ..	6 Puget sound and Washington ..	4,600			
Do	5 Columbia and Willamette rivers ..	555			
Do	3 Northern California coast ..	5,337			
Do	7 Foreign ..	17,045			
7 Foreign ..	2 San Francisco bay and rivers ..	17,045			
Do	7 Foreign ..	358			

TRAFFIC OPERATIONS—Continued.

TABLE 10.—INTERDISTRICT MOVEMENT (MILEAGE)—Continued.

OREGON, OREGON (SAILING VESSELS).			WILLAMETTE, OREGON (ALL CRAFT)—Continued.		
From—	To—	Miles.	From—	To—	Miles.
Total.....		19,742	5 Columbia and Willamette rivers	6 Puget sound and Washington...	18,624
6 Puget sound and Washington..	6 Puget sound and Washington...	8,350	Do.....	5 Columbia and Willamette rivers.	991,219
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers.	8,892	Do.....	4 Oregon coast.....	5,720
Do.....	4 Oregon coast.....	60	Do.....	2 San Francisco bay and rivers...	77,140
Oregon coast.....	5 Columbia and Willamette rivers.	60	Do.....	7 Foreign.....	5,500
Do.....	4 Oregon coast.....	180	2 San Francisco bay and rivers	6 Puget sound and Washington...	34,608
7 Foreign.....	9 Alaska and Bering sea.....	2,200	Do.....	7 Foreign.....	5,392
			Do.....	9 Alaska and Bering sea.....	3,100
			7 Foreign.....	5 Columbia and Willamette rivers.	5,393
			Do.....	2 San Francisco bay and rivers...	5,500
			9 Alaska and Bering sea.....	do.....	3,100
OREGON, OREGON (ALL CRAFT).			PUGET SOUND, WASHINGTON (STEAMERS AND UNRIGGED CRAFT).		
Total.....		295,818	Total.....		1,653,603
6 Puget sound and Washington..	6 Puget sound and Washington...	88,331	6 Puget sound and Washington...	6 Puget sound and Washington...	1,577,873
Do.....	5 Columbia and Willamette rivers.	3,675	Do.....	7 Foreign.....	838
Do.....	4 Oregon coast.....	9,048	5 Columbia and Willamette rivers	5 Columbia and Willamette rivers.	73,714
5 Columbia and Willamette rivers	6 Puget sound and Washington...	3,675	Do.....	4 Oregon coast.....	340
Do.....	5 Columbia and Willamette rivers.	142,163	7 Foreign.....	6 Puget sound and Washington...	838
Do.....	4 Oregon coast.....	6,300			
Do.....	2 San Francisco bay and rivers...	4,170			
Do.....	1 Southern California coast.....	7,370			
4 Oregon coast.....	6 Puget sound and Washington...	9,048			
Do.....	5 Columbia and Willamette rivers.	60			
Do.....	4 Oregon coast.....	7,638			
2 San Francisco bay and rivers..	5 Columbia and Willamette rivers.	4,170			
1 Southern California coast.....	do.....	7,370			
7 Foreign.....	9 Alaska and Bering sea.....	2,200			
9 Alaska and Bering sea.....	do.....	600			
WILLAMETTE, OREGON (STEAMERS AND UNRIGGED CRAFT).			PUGET SOUND, WASHINGTON (SAILING VESSELS).		
Total.....		1,346,979	Total.....		531,807
6 Puget sound and Washington..	6 Puget sound and Washington...	53,783	6 Puget sound and Washington...	6 Puget sound and Washington...	24,845
Do.....	5 Columbia and Willamette rivers.	18,624	Do.....	2 San Francisco bay and rivers...	124,105
Do.....	2 San Francisco bay and rivers...	34,608	Do.....	1 Southern California coast.....	16,062
Do.....	7 Foreign.....	113,853	Do.....	7 Foreign.....	75,329
5 Columbia and Willamette rivers	6 Puget sound and Washington...	18,624	3 Northern California coast.....	2 San Francisco bay and rivers...	432
Do.....	5 Columbia and Willamette rivers.	990,019	Do.....	7 Foreign.....	11,733
Do.....	4 Oregon coast.....	5,720	2 San Francisco bay and rivers..	6 Puget sound and Washington...	124,105
Do.....	2 San Francisco bay and rivers...	77,140	Do.....	7 Foreign.....	23,000
2 San Francisco bay and rivers..	6 Puget sound and Washington...	34,608	Do.....	9 Alaska and Bering sea.....	3,000
			7 Foreign.....	6 Puget sound and Washington...	75,329
			Do.....	2 San Francisco bay and rivers...	23,000
			Do.....	1 Southern California coast.....	22,255
			Do.....	9 Alaska and Bering sea.....	1,082
			9 Alaska and Bering sea.....	6 Puget sound and Washington...	2,000
			Do.....	2 San Francisco bay and rivers...	3,000
			Do.....	9 Alaska and Bering sea.....	2,500
WILLAMETTE, OREGON (SAILING VESSELS).			PUGET SOUND, WASHINGTON (ALL CRAFT).		
Total.....		30,400	Total.....		2,185,410
6 Puget sound and Washington..	1 Southern California coast.....	1,215	6 Puget sound and Washington...	6 Puget sound and Washington...	1,602,718
5 Columbia and Willamette rivers	5 Columbia and Willamette rivers.	1,200	Do.....	2 San Francisco bay and rivers...	124,105
Do.....	7 Foreign.....	5,392	Do.....	1 Southern California coast.....	16,092
2 San Francisco bay and rivers..	do.....	5,500	Do.....	7 Foreign.....	76,167
Do.....	9 Alaska and Bering sea.....	3,100	5 Columbia and Willamette rivers	5 Columbia and Willamette rivers.	73,714
7 Foreign.....	5 Columbia and Willamette rivers.	5,393	Do.....	4 Oregon coast.....	340
Do.....	2 San Francisco bay and rivers...	5,500	3 Northern California coast.....	2 San Francisco bay and rivers...	432
9 Alaska and Bering sea.....	do.....	3,100	Do.....	7 Foreign.....	11,733
			2 San Francisco bay and rivers..	6 Puget sound and Washington...	124,105
			Do.....	7 Foreign.....	23,000
			Do.....	9 Alaska and Bering sea.....	3,000
			7 Foreign.....	6 Puget sound and Washington...	76,167
			Do.....	2 San Francisco bay and rivers...	23,000
			Do.....	1 Southern California coast.....	22,255
			Do.....	9 Alaska and Bering sea.....	1,082
			9 Alaska and Bering sea.....	6 Puget sound and Washington...	2,000
			Do.....	2 San Francisco bay and rivers...	3,000
			Do.....	9 Alaska and Bering sea.....	2,500
WILLAMETTE, OREGON (ALL CRAFT).					
Total.....		1,377,379			
6 Puget sound and Washington..	6 Puget sound and Washington...	53,783			
Do.....	5 Columbia and Willamette rivers.	18,624			
Do.....	2 San Francisco bay and rivers...	34,608			
Do.....	1 Southern California coast.....	1,215			
Do.....	7 Foreign.....	113,853			

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES.

TABLE 11.—FINANCIAL ACCOUNT IN GENERAL—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL OPERATING CRAFT OVER FIVE TONS ON THE PACIFIC COAST IN 1889.

CUSTOMS DISTRICTS.	TOTAL ALL CRAFT.			STEAMERS AND UNRIGGED CRAFT.			SAILING VESSELS.		
	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.	Gross earnings.	Expenses.	Net earnings.
Total	\$20,628,316.28	\$17,274,809.30	\$3,353,506.98	\$13,237,222.29	\$11,446,692.77	\$1,790,529.52	\$7,391,093.99	\$5,828,116.53	\$1,562,977.46
California	14,548,861.36	12,018,431.83	2,530,429.53	8,224,496.76	7,009,208.94	1,155,287.82	6,324,364.60	4,949,222.89	1,375,141.71
San Diego	62,707.47	60,442.84	2,264.63	42,507.47	45,985.04	α3,477.57	20,200.00	14,457.80	5,742.20
Wilmington	91,689.68	89,509.73	2,179.95	64,406.14	63,576.84	829.30	27,283.54	25,932.89	1,350.65
San Francisco	14,191,341.93	11,701,926.71	2,489,415.22	8,015,094.94	6,872,414.76	1,142,680.18	6,176,246.99	4,829,511.95	1,346,735.04
Humboldt	203,122.28	166,552.55	36,569.73	102,488.21	87,232.30	15,255.91	100,634.07	79,320.25	21,313.82
Oregon	3,864,723.69	3,453,508.85	411,214.84	3,771,609.33	3,388,591.33	383,018.00	93,114.36	64,917.52	28,196.84
Southern Oregon	62,886.33	48,341.36	14,544.97	56,499.33	42,405.36	14,093.97	6,387.00	5,936.00	451.00
Yaquina	119,227.63	128,260.54	α9,032.91	119,227.63	128,260.54	α9,032.91			
Oregon	243,410.16	188,686.63	54,723.53	212,478.11	167,249.00	45,229.11	30,932.05	21,437.63	9,494.42
Willamette	3,439,199.57	3,088,220.32	350,979.25	3,383,404.26	3,050,676.43	332,727.83	55,795.31	37,543.89	18,251.42
Washington—Puget sound ..	2,214,731.23	1,802,868.62	411,862.61	1,241,116.20	988,892.50	252,223.70	973,615.03	813,976.12	159,638.91

α Deficit.

TRANSPORTATION ON THE PACIFIC COAST.

205

EARNINGS AND EXPENSES—Continued.

TABLE 12.—ITEMIZED EXPENSE ACCOUNT OF ALL VESSELS REPORTING AND ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST, SUBDIVIDED INTO THE VARIOUS ITEMS CONSTITUTING RUNNING AND SHORE EXPENSES.

STEAMERS AND SAILING VESSELS, EXCLUSIVE OF FERRYBOATS.

CUSTOMS DISTRICTS.	Number of vessels.	RUNNING EXPENSES.						
		Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	1,001	\$13,226,080.53	\$292,085.09	\$5,212,639.20	\$1,507,183.73	\$1,098,232.20	\$2,094,523.42	\$3,021,416.80
California	724	8,783,424.68	179,435.86	3,670,038.30	1,095,267.48	808,728.93	1,496,655.60	1,533,298.51
San Diego.....	7	9,035.85	7.00	4,143.73	1,500.00	1,572.80		1,812.32
Wilmington	13	79,172.08	1,531.80	39,027.45	11,473.08	5,047.88	15,107.90	6,983.97
San Francisco	685	8,578,287.25	172,354.53	3,559,877.97	1,070,483.31	793,962.80	1,477,547.70	1,504,060.94
Humboldt	19	116,929.50	5,542.53	66,989.15	11,811.09	8,145.45	4,000.00	20,441.28
Oregon.....	132	2,992,026.41	74,898.01	859,531.59	196,108.54	184,579.58	419,920.30	1,256,988.44
Southern Oregon	13	41,868.05	103.50	29,484.00	2,910.06	3,602.55	4,820.80	947.20
Yaquina	7	95,958.43	1,368.80	36,153.31	9,330.44	5,854.63	22,703.00	20,548.25
Oregon	47	162,175.41	1,650.00	99,316.12	14,667.15	11,576.61	29,320.00	5,645.53
Willamette	65	2,092,024.52	71,775.71	694,578.16	169,200.95	163,545.74	363,076.50	1,229,847.46
Washington—Puget sound	145	1,450,629.44	37,751.22	683,069.31	215,807.71	104,923.83	177,947.52	231,129.85

CUSTOMS DISTRICTS.	SHORE EXPENSES.					
	Total.	Commissions.	Insurance.	Taxes.	Office expenses.	Other.
Total	\$1,672,060.79	\$175,080.30	\$542,938.01	\$125,655.76	\$210,130.26	\$618,256.46
California.....	1,185,713.91	133,206.84	422,993.73	93,389.87	173,002.66	363,120.81
San Diego	516.25		270.00	21.25		225.00
Wilmington	5,436.50		3,700.00	613.25		1,123.25
San Francisco	1,170,691.72	132,331.12	418,507.00	91,392.77	173,002.66	355,458.17
Humboldt	9,069.44	875.72	516.73	1,362.60		6,314.39
Oregon	295,866.34	20,920.40	54,131.70	18,195.61	27,543.94	175,074.69
Southern Oregon	754.50		150.00	424.50	180.00	
Yaquina	3,430.42		450.00	1,033.18		1,953.24
Oregon	3,650.91	110.00	1,985.70	870.21	450.00	235.00
Willamette	288,024.51	20,810.40	51,546.00	15,867.72	26,913.94	172,886.45
Washington—Puget sound	190,480.54	20,953.06	65,812.58	14,070.28	9,583.66	80,060.96

STEAMERS.

CUSTOMS DISTRICTS.	Number of vessels.	RUNNING EXPENSES.						
		Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	354	\$8,460,400.63	\$135,921.09	\$2,924,205.19	\$832,191.57	\$613,703.33	\$2,094,523.42	\$1,859,856.03
California.....	147	4,726,952.38	55,737.81	1,703,263.70	516,875.06	380,400.08	1,496,655.60	574,020.13
Wilmington	5	55,903.74	222.25	25,826.45	8,169.77	2,152.13	15,107.90	4,425.24
San Francisco	136	4,629,573.76	55,035.56	1,655,683.25	508,705.29	375,725.58	1,477,547.70	556,876.38
Humboldt	6	41,474.88	480.00	21,754.00		2,522.37	4,000.00	12,718.51
Oregon.....	114	2,939,381.60	73,352.52	832,502.84	188,345.15	182,709.82	419,920.30	1,242,550.97
Southern Oregon	12	36,118.05		25,984.00	1,830.00	2,802.55	4,820.80	680.70
Yaquina	7	95,958.43	1,368.80	36,153.31	9,330.44	5,854.63	22,703.00	20,548.25
Oregon	33	150,964.89	1,650.00	88,927.37	13,917.15	11,576.61	29,320.00	5,573.76
Willamette	62	2,656,340.13	70,333.72	681,438.16	163,267.56	162,476.03	363,076.50	1,215,748.26
Washington—Puget sound	93	794,066.65	6,830.76	388,438.65	126,971.36	50,563.43	177,947.52	43,284.93

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 12.—ITEMIZED EXPENSE ACCOUNT—Continued.

STEAMERS—Continued.

CUSTOMS DISTRICTS.	SHORE EXPENSES.					
	Total.	Commissions.	Insurance.	Taxes.	Office expenses.	Other.
Total	\$1,035,370.82	\$75,819.03	\$384,795.87	\$72,799.12	\$210,130.26	\$291,826.54
California	675,842.96	50,935.52	309,627.00	49,396.93	173,002.66	92,680.85
Wilmington	4,521.95		3,700.00	435.00		386.95
San Francisco	666,117.20	50,935.52	305,702.00	48,745.33	173,002.66	87,731.60
Humboldt	5,203.81		225.00	216.60		4,762.21
Oregon	293,727.74	20,520.40	52,931.70	17,682.01	27,543.94	175,049.09
Southern Oregon	568.50			388.50	180.00	
Yaquina	3,436.42		450.00	1,033.18		1,953.24
Oregon	3,557.91	110.00	1,985.70	802.21	450.00	210.00
Willamette	286,164.91	20,410.40	50,496.00	15,458.12	26,913.94	172,886.45
Washington—Puget sound	65,800.12	4,363.11	22,237.17	5,720.18	9,583.66	23,896.00

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number of vessels.	RUNNING EXPENSES.						
		Total.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other.
Total	647	\$4,765,679.90	\$156,164.00	\$2,288,434.01	\$674,992.16	\$484,528.96		\$1,161,560.77
California	577	4,056,472.20	123,698.05	1,966,774.60	578,392.42	428,328.85		959,278.38
San Diego	7	9,035.85	7.00	4,143.73	1,500.00	1,572.80		1,812.32
Wilmington	8	23,268.34	1,309.55	13,201.00	3,303.31	2,895.75		2,558.
San Francisco	549	3,948,713.49	117,318.97	1,904,194.72	561,778.02	418,237.22		947,184.5
Humboldt	13	75,454.62	5,062.53	45,235.15	11,811.09	5,623.08		7,722.
Oregon	18	52,644.81	1,545.49	27,028.75	7,783.39	1,869.71		14,437.47
Southern Oregon	1	5,750.00	103.50	3,500.00	1,080.00	800.00		266.50
Oregon	14	11,210.52		10,388.75	750.00			71.77
Willamette	3	35,684.29	1,441.99	13,140.00	5,933.39	1,069.71		14,099.2
Washington—Puget sound	52	656,562.79	30,920.46	294,630.66	88,836.35	54,330.40		187,844.92

CUSTOMS DISTRICTS.	SHORE EXPENSES.					
	Total.	Commissions.	Insurance.	Taxes.	Office expenses.	Other.
Total	\$636,689.97	\$99,261.27	\$158,142.14	\$52,856.64		\$326,429.92
California	509,870.95	82,271.32	113,366.73	43,992.94		270,239.96
San Diego	516.25		270.00	21.25		225.00
Wilmington	914.55			178.25		736.30
San Francisco	504,574.52	81,395.60	112,805.00	42,647.44		267,726.46
Humboldt	3,865.63	875.72	291.73	1,146.00		1,552.18
Oregon	2,138.60	400.00	1,200.00	513.60		25.00
Southern Oregon	186.00		150.00	36.60		
Oregon	93.00			68.00		25.00
Willamette	1,859.60	400.00	1,050.00	409.60		
Washington—Puget sound	124,680.42	16,589.95	43,575.41	8,350.10		56,164.96

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—MONTHLY WAGES PAID IN EACH DISTRICT TO ALL GRADES OF EMPLOYÉS ON VESSELS ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST IN 1889, EXCLUSIVE OF FERRYBOATS.

STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Num- ber of vessels.	TOTAL.		CAPTAINS.		FIRST MATES.		SECOND MATES, THIRD MATES, AND BOATSWAINS.		CLERKS AND PURSERS.		SURGEONS.	
		Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	1,001	10,396	\$521,502.86	1,001	\$95,175.97	685	\$39,573.77	432	\$20,756.16	189	\$12,652.50	2	\$110.00
Total steam	354	5,825	311,545.22	354	41,271.46	286	18,783.87	138	7,556.16	188	12,552.50	2	110.00
Total sail	647	4,571	209,957.64	647	53,904.51	399	20,789.90	294	13,200.00	1	100.00		

CUSTOMS DISTRICTS.	FIRST ENGINEERS.		SECOND ENGINEERS AND THIRD ENGINEERS.		FIREMEN AND COAL PASSERS.		WHEELMEN AND PILOTS.		LOOKOUTS.		WATCHMEN.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	353	\$35,798.54	251	\$18,650.00	657	\$29,847.26	134	\$9,509.17	24	\$1,039.50	160	\$6,702.73
Total steam	353	35,798.54	251	18,650.00	657	29,847.26	128	9,204.17	19	844.50	153	6,407.73
Total sail							6	305.00	5	195.00	7	295.00

CUSTOMS DISTRICTS.	COOKS AND BAKERS.		COOKS' ASSISTANTS, PANTRYMEN, AND BUTCHERS.		SEAMEN.		DECK HANDS AND PORTERS.		OILERS AND WATER TENDERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	726	\$35,339.45	393	\$10,962.28	3,331	\$127,817.33	989	\$38,344.25	172	\$8,053.37
Total steam	296	14,544.45	267	8,372.28	800	35,090.10	939	38,344.25	172	8,053.37
Total sail	430	20,795.00	126	2,590.00	2,531	92,727.23				

CUSTOMS DISTRICTS.	STEWARDS AND STORE- KEEPERS.		WAITERS.		BOYS.		CHAMBERMAIDS AND STEWARDESSES.		CARPENTERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	192	\$9,440.00	455	\$11,612.58	163	\$3,858.00	18	\$445.00	119	\$5,825.00
Total steam	177	8,870.00	455	11,612.58	140	3,517.00	18	445.00	32	1,670.00
Total sail	15	570.00			23	341.00			87	4,155.00

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

STEAMERS.

CUSTOMS DISTRICTS.	Num- ber of vessels.	TOTAL.		CAPTAINS.		FIRST MATES.		SECOND MATES, THIRD MATES, AND BOATSWAINS.		CLERKS AND PURSERS.		SURGEONS.	
		Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	354	5,825	\$311,545.22	354	\$41,271.46	286	\$18,783.87	138	\$7,556.16	188	\$12,552.50	2	\$110.00
Total for California.....	147	3,342	182,278.16	147	19,756.30	128	9,684.37	108	6,025.00	89	6,421.50	2	110.00
Total for Oregon.....	114	1,738	87,698.21	114	12,288.50	84	5,062.00	27	1,431.16	66	4,166.00		
Total for Washington.....	93	745	41,568.85	93	9,228.66	74	4,037.50	3	100.00	33	1,965.00		
California.....	147	3,342	182,278.16	147	19,756.30	128	9,684.37	108	6,025.00	89	6,421.50	2	110.00
Wilmington.....	5	49	3,060.20	5	600.30	3	191.87	2	105.00	1	54.00		
San Francisco.....	136	3,270	177,925.00	136	18,710.00	123	9,417.50	106	5,920.00	88	6,367.50		110.00
Humboldt.....	6	23	1,292.00	6	446.00	2	75.00						
Oregon.....	114	1,738	87,698.21	114	12,288.50	84	5,062.00	27	1,431.16	66	4,166.00		
Southern Oregon.....	12	42	2,717.00	12	980.00	2	90.00			1	100.00		
Yaquina.....	7	60	3,250.00	7	615.00	3	190.00	1	60.00	1	75.00		
Oregon.....	33	168	10,168.82	33	2,892.50	20	1,030.00	5	241.66	5	335.00		
Willamette.....	62	1,466	71,562.39	62	7,801.00	59	3,752.00	21	1,129.50	59	3,656.00		
Washington—Puget sound.....	93	745	41,568.85	93	9,228.66	74	4,037.50	3	100.00	33	1,965.00		

CUSTOMS DISTRICTS.	FIRST ENGINEERS.		SECOND ENGINEERS AND THIRD ENGINEERS.		FIREMEN AND COAL PASSERS.		WHEELMEN AND PILOTS.		LOOKOUTS.		WATCHMEN.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	353	\$35,798.54	251	\$18,650.00	657	\$29,847.26	128	\$9,204.17	19	\$844.50	153	\$6,407.73
Total for California.....	146	16,338.22	155	12,462.50	395	18,589.46	91	7,054.17	13	544.50	73	3,147.73
Total for Oregon.....	114	11,390.16	65	4,322.50	191	8,262.62	33	1,900.00	6	300.00	57	2,320.00
Total for Washington.....	93	8,070.16	31	1,865.00	71	2,995.18	4	250.00			23	940.00
California.....	146	16,338.22	155	12,462.50	395	18,589.46	91	7,054.17	13	544.50	73	3,147.73
Wilmington.....	5	546.72	1	90.00	4	156.09	1	45.00			2	122.73
San Francisco.....	135	15,365.50	152	12,292.50	391	18,433.37	90	7,009.17	13	544.50	71	3,025.00
Humboldt.....	6	426.00	2	80.00								
Oregon.....	114	11,390.16	65	4,322.50	191	8,262.62	33	1,900.00	6	300.00	57	2,320.00
Southern Oregon.....	12	925.00	2	105.00	1	50.00					1	40.00
Yaquina.....	7	505.00	3	210.00	7	310.00	2	90.00				
Oregon.....	33	2,679.16	6	342.50	6	272.50					3	120.00
Willamette.....	62	7,281.00	54	3,665.00	177	7,630.12	31	1,810.00	6	300.00	53	2,160.00
Washington—Puget sound.....	93	8,070.16	31	1,865.00	71	2,995.18	4	250.00			23	940.00

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉES AND WAGES IN DETAIL—Continued.

STEAMERS—Continued.

CUSTOMS DISTRICTS.	COOKS AND BAKERS.		COOKS' ASSISTANTS, PANTRYMEN, AND BUTCHERS.		SEAMEN.		DECK HANDS AND PORTERS.		OILERS AND WATER TENDERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	296	\$14,544.45	287	\$8,372.28	800	\$35,090.10	939	\$38,344.25	172	\$8,053.37
Total for California.....	141	7,786.78	162	5,194.78	659	29,250.00	458	19,202.40	123	5,863.37
Total for Oregon.....	84	3,660.17	84	2,650.00	124	5,205.00	329	13,257.60	48	2,150.00
Total for Washington	71	3,097.50	21	527.50	17	635.10	152	5,884.25	1	40.00
California.....	141	7,786.78	162	5,194.78	659	29,250.00	458	19,202.40	123	5,863.37
Wilmington	4	212.78	1	34.86	4	180.00	6	267.40	4	208.37
San Francisco	137	7,574.00	161	5,159.92	655	29,070.00	447	18,755.00	117	5,575.00
Humboldt							5	180.00	2	85.00
Oregon	84	3,660.17	84	2,650.00	124	5,205.00	329	13,257.60	48	2,150.00
Southern Oregon	1	26.00					10	401.00		
Yaquina	4	170.00	5	215.00	6	270.00	3	130.00	3	135.00
Oregon	12	465.00	1	25.00	11	415.00	25	1,045.50	1	35.00
Willamette	67	2,999.17	78	2,410.00	107	4,520.00	291	11,681.10	44	1,980.00
Washington—Puget sound	71	3,097.50	21	527.50	17	635.10	152	5,884.25	1	40.00

CUSTOMS DISTRICTS.	STEWARDS AND STORE- KEEPERS.		WAITERS.		BOYS.		CHAMBERMAIDS AND STEWARDESSES.		CARPENTERS.	
	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.	Num- ber.	Wages per month.
Total	177	\$8,870.00	455	\$11,612.58	140	\$3,517.00	18	\$445.00	32	\$1,670.00
Total for California.....	104	5,242.00	250	6,450.08	61	1,545.00	12	290.00	25	1,320.00
Total for Oregon.....	56	2,763.00	168	4,217.50	76	1,897.00	6	155.00	6	300.00
Total for Washington	17	865.00	37	945.00	3	75.00			1	50.00
California	104	5,242.00	250	6,450.08	61	1,545.00	12	290.00	25	1,320.00
Wilmington	1	90.00	4	140.08	1	20.00				
San Francisco	103	5,152.00	246	6,310.00	60	1,525.00	12	290.00	25	1,320.00
Humboldt										
Oregon	56	2,763.00	168	4,217.50	76	1,897.00	6	155.00	6	300.00
Southern Oregon										
Yaquina	1	75.00	5	125.00			1	25.00	1	50.00
Oregon	4	170.00	1	25.00	1	25.00			1	50.00
Willamette	51	2,518.00	162	4,067.50	75	1,872.00	5	130.00	4	200.00
Washington—Puget sound	17	865.00	37	945.00	3	75.00			1	50.00

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number of vessels.	TOTAL.		CAPTAINS.		FIRST MATES.		SECOND MATES, THIRD MATES, AND BOATSWAINS.		CLERKS AND PURSERS.		SURGEONS.	
		Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.	Num-ber.	Wages per month.
Total	647	4, 571	\$209, 957. 64	647	\$53, 904. 51	399	\$20, 789. 90	294	\$13, 200. 00	1	\$100. 00	.....	.....
Total for California	577	3, 848	178, 274. 43	577	47, 942. 40	339	17, 657. 40	242	10, 880. 00	1	100. 00	.....	.....
Total for Oregon	18	69	2, 950. 71	18	1, 197. 11	10	492. 50	2	90. 00	.....	.....	.....	.....
Total for Washington	52	654	28, 732. 50	52	4, 765. 00	50	2, 640. 00	50	2, 230. 00	.....	.....	.....	.....
California	577	3, 848	178, 274. 43	577	47, 942. 40	339	17, 657. 40	242	10, 880. 00	1	100. 00	.....	.....
San Diego	7	20	892. 75	7	405. 00	2	65. 00	.....	.....	.....	.....	.....	.....
Wilmingtion	6	29	1, 359. 88	8	515. 00	2	105. 00	2	90. 00	.....	.....	.....	.....
San Francisco	549	3, 699	171, 407. 00	549	45, 840. 00	323	16, 885. 00	228	10, 265. 00	1	100. 00	.....	.....
Humboldt	13	100	4, 614. 80	13	1, 182. 40	12	602. 40	12	525. 00	.....	.....	.....	.....
Oregon	18	69	2, 950. 71	18	1, 197. 11	10	492. 50	2	90. 00	.....	.....	.....	.....
Southern Oregon	1	7	380. 00	1	100. 00	1	50. 00	.....	.....	.....	.....	.....	.....
Oregon	14	30	1, 415. 71	14	797. 11	7	332. 50	.....	.....	.....	.....	.....	.....
Willamette	3	32	1, 175. 00	3	300. 00	2	110. 00	2	90. 00	.....	.....	.....	.....
Washington—Puget sound	52	654	28, 732. 50	52	4, 765. 00	50	2, 640. 00	50	2, 230. 00	.....	.....	.....	.....

[illegible]

211'

TABLE 13.—EMPLOYÉS AND WAGES IN DETAIL—Continued.

SAILING VESSELS—Continued.

[illegible]

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSES—Continued.

TABLE 14.—EMPLOYÉS AND WAGES BY COAST TOTALS—AGGREGATE AND AVERAGE MONTHLY WAGES PAID TO EACH GRADE OF EMPLOYÉS ON ALL VESSELS ENGAGED IN PASSENGER AND FREIGHT TRAFFIC ON THE PACIFIC COAST, EXCLUSIVE OF FERRYBOATS.

EMPLOYÉS.	ALL CRAFT.			STEAMERS.			SAILING VESSELS.		
	Number employed.	Aggregate wages for one month.	Average monthly wages.	Number employed.	Aggregate wages for one month.	Average monthly wages.	Number employed.	Aggregate wages for one month.	Average monthly wages.
Total	10,396	\$521,502.86	\$50.16	5,825	\$311,545.22	\$53.48	4,571	\$209,957.64	\$45.93
Captains	1,001	95,175.97	95.08	354	41,271.46	116.59	647	53,904.51	83.31
First mates	625	39,573.77	57.77	286	18,783.87	65.68	399	20,789.90	52.11
Second mates, third mates, and boatswains	432	20,756.16	48.05	138	7,556.16	54.75	294	13,200.00	44.90
Clerks and pursers	189	12,652.50	66.94	188	12,552.50	66.77	1	100.00	100.00
Surgeons	2	110.00	55.00	2	110.00	55.00			
First engineers	353	35,798.54	101.41	353	35,798.54	101.41			
Second and third engineers	251	18,650.00	74.30	251	18,650.00	74.30			
Firemen and coal passers	657	29,847.26	45.43	657	29,847.26	45.43			
Wheelmen and pilots	134	9,509.17	70.96	128	9,204.17	71.91	6	305.00	50.83
Lookouts	24	1,039.50	43.31	19	844.50	44.45	5	195.00	39.00
Watchmen	160	6,702.73	41.89	153	6,407.73	41.88	7	295.00	42.14
Cooks and bakers	726	35,339.45	48.68	296	14,544.45	49.14	430	20,795.00	48.36
Cooks' assistants, pantrymen, and butchers	393	10,952.28	27.87	267	8,372.28	31.36	126	2,580.00	20.48
Seamen	3,331	127,817.33	38.37	800	35,090.10	43.86	2,531	92,727.23	36.64
Deck hands and porters	939	38,344.25	40.84	939	38,344.25	40.84			
Oilers and water tenders	172	8,053.37	46.82	172	8,053.37	46.82			
Stewards and storekeepers	192	9,440.00	49.17	177	8,870.00	50.11	15	570.00	38.00
Waiters	455	11,612.58	25.52	455	11,612.58	25.52			
Boys	163	3,858.00	23.67	140	3,517.00	25.12	23	341.00	14.83
Chambermaids and stewardesses	18	445.00	24.72	18	445.00	24.72			
Carpenters	119	5,825.00	48.95	32	1,670.00	52.19	87	4,155.00	47.76

TABLE 15.—FUEL ACCOUNT—AMOUNT AND VALUE OF THE COAL AND WOOD USED AS FUEL ON PASSENGER AND FREIGHT STEAMERS, FERRYBOATS, HARBOR TUGS, AND STEAM YACHTS OF THE PACIFIC COAST.

CUSTOMS DISTRICTS.	Total cost of fuel.	COAL.		WOOD.	
		Tons.	Cost.	Cords.	Cost.
Total	\$2,467,882.17	371,977	\$2,117,032.65	163,669	\$350,849.52
California	1,687,578.80	291,980	1,670,316.60	14,299	27,262.20
San Diego	10,499.40	1,842	10,499.40		
Wilmington	16,249.70	1,878	16,244.70	2	5.00
San Francisco	1,655,672.50	286,625	1,633,762.50	10,955	21,910.00
Humboldt	15,157.20	1,635	9,810.00	3,342	5,347.20
Oregon	548,186.25	54,743	340,649.25	95,643	207,537.00
Southern Oregon	5,616.10	3	22.50	3,496	5,593.60
Yaquina	26,181.90	2,945	22,087.50	2,559	4,094.40
Oregon	30,277.85	79	485.85	14,896	29,792.00
Willamette	486,110.40	51,716	318,053.40	74,692	168,057.00
Washington—Puget sound	222,117.12	25,254	106,066.80	53,727	116,050.32

TRANSPORTATION ON THE PACIFIC COAST.

213

GENERAL OPERATIONS BY CLASSES.

TABLE 16.—PASSENGER AND FREIGHT VESSELS—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF ALL VESSELS ENGAGED IN THE TRANSPORTATION OF PASSENGERS AND FREIGHT ON THE PACIFIC COAST, EXCLUSIVE OF FERRYBOATS.

ALL CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	1,490	387,325	\$19,598,440	198,707	11,093,537	8,803,591	1,380,234

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$18,112,955.63	\$14,898,141.32	\$3,214,814.31	3,331	\$38.37	10,396	30,332	\$5,212,639.20

STEAMERS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	354	120,491	\$12,060,755	159,721	5,586,182	5,727,168	1,380,234
California	147	73,833	7,657,705	23,134	2,377,030	2,684,363	211,171
Wilmington	5	756	149,500	410	48,752	144,726	12,305
San Francisco	136	72,626	7,479,705	19,218	2,304,871	2,420,955	173,906
Humboldt	6	451	28,500	3,506	23,407	118,082	24,960
Oregon	114	45,016	4,027,200	104,542	1,588,444	891,784	775,065
Southern Oregon	12	651	48,300	6,522	96,566	119,499	32,585
Yaquina	7	1,077	125,000	2,928	67,050	31,491	14,597
Oregon	33	2,897	247,600	13,692	276,076	242,130	98,006
Willamette	62	40,391	3,806,300	81,400	1,148,752	498,664	630,477
Washington—Puget sound	93	10,642	975,850	32,045	1,620,708	2,151,021	393,398

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$11,200,131.71	\$9,495,771.45	\$1,704,360.26	800	\$43.86	5,825	15,807	\$2,924,205.19
California	6,507,530.74	5,402,795.34	1,104,735.40	659	44.38	3,342	9,866	1,703,263.70
Wilmington	61,347.92	60,425.69	922.23	4	45.00	49	82	25,826.43
San Francisco	6,390,204.61	5,295,690.96	1,094,513.65	655	44.38	3,270	9,740	1,655,683.25
Humboldt	55,978.21	46,678.69	9,299.52			23	44	21,754.00
Oregon	3,580,464.66	3,233,109.34	347,355.32	124	41.97	1,738	4,041	832,502.84
Southern Oregon	49,246.61	36,686.55	12,560.06			42	56	25,984.00
Yaquina	84,463.34	99,394.85	14,931.51	6	45.00	60	185	36,153.31
Oregon	199,086.11	154,522.80	44,563.31	11	37.73	168	499	88,927.37
Willamette	3,247,668.60	2,942,505.14	305,163.46	107	42.24	1,468	3,301	681,438.16
Washington—Puget sound	1,112,136.31	850,866.77	252,269.54	17	37.36	745	1,900	388,438.65

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	647	194,478	\$6,112,340	38,986	5,507,355	2,761,826	
California	577	150,825	5,238,900	36,299	4,916,486	2,401,593	
San Diego	7	222	20,350	66	15,274	2,300	
Wilmington	8	588	27,400	229	26,436	7,571	
San Francisco	549	146,924	4,948,150	35,168	4,772,113	2,351,598	
Humboldt	13	3,091	241,000	836	102,663	40,124	

a Deficit.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 16.—PASSENGER AND FREIGHT VESSELS—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Oregon	18	2,022	\$53,385	1,608	59,062	34,050	
Southern Oregon	1	90	8,000	21	8,920	2,916	
Oregon	14	220	10,350	1,564	19,742	21,097	
Willamette	3	1,712	35,035	23	30,400	10,037	
Washington—Puget sound	52	41,031	822,055	1,079	531,807	326,183	

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$6,912,823.92	\$5,402,369.87	\$1,510,454.05	2,531	\$36.64	4,571	14,525	\$2,288,434.01
California	5,884,740.48	4,566,343.25	1,318,397.23	2,126	36.46	3,848	12,627	1,966,774.60
San Diego	10,640.00	9,552.10	1,087.90	6	40.46	20	33	4,143.73
Wilmington	25,533.54	24,182.89	1,350.65	14	35.71	29	60	13,201.00
San Francisco	5,747,932.87	4,453,288.01	1,294,644.86	2,054	36.51	3,699	12,280	1,904,194.72
Humboldt	100,634.07	79,320.25	21,313.82	52	34.04	100	254	45,235.15
Oregon	81,558.05	54,783.41	26,774.64	27	27.82	69	103	27,028.75
Southern Oregon	6,387.00	5,930.00	451.00	4	40.00	7	7	3,500.00
Oregon	19,375.74	11,303.52	8,072.22	6	27.68	30	43	10,386.75
Willamette	55,795.31	37,543.89	18,251.42	17	25.00	32	53	13,140.00
Washington—Puget sound	946,525.39	781,243.21	165,282.18	378	38.29	654	1,795	294,630.66

UNRIGGED CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	489	63,356	\$825,345			314,597	
San Diego, California	28	1,966	12,975			33,064	
Wilmington, California	33	3,935	62,000			(a)	
San Francisco, California	146	27,082	506,700			27,000	
Humboldt, California	22	2,290	19,525			2,900	
Southern Oregon, Oregon	93	3,026	20,690			55,860	
Yaquina, Oregon	3	40	200			(a)	
Oregon, Oregon	28	1,491	13,810			(a)	
Willamette, Oregon	34	11,002	109,400			32,030	
Puget sound, Washington	102	12,524	80,045			163,743	

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total								
San Diego, California								
Wilmington, California								
San Francisco, California								
Humboldt, California	(a)	(a)	(a)	(a)	(a)	(a)	(a)	(a)
Southern Oregon, Oregon								
Yaquina, Oregon								
Oregon, Oregon								
Willamette, Oregon								
Puget sound, Washington								

a Included in steamers.

TRANSPORTATION ON THE PACIFIC COAST.

215

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 17.—FERRYBOATS—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF FERRYBOATS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	38	24,630	\$979,300	473,963	1,179,978	14,772	2,639,095
California.....	20	22,551	816,000	176,783	946,092	20	614,006
San Diego	3	488	31,500	39,158	43,867	20	545,558
San Francisco	17	22,063	784,500	137,625	902,225		68,448
Oregon.....	16	1,783	118,300	284,554	200,991	13,893	1,922,838
Southern Oregon	1	20	1,200	184	1,656		1,275
Yaquina	1	16	900	1,072	1,108	92	1,125
Willamette	14	1,747	116,200	283,298	198,227	13,801	1,920,438
Washington—Puget sound.....	2	296	45,000	12,626	32,895	859	102,251

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$994,475.95	\$964,904.32	\$29,571.63	126	\$59.00	478	1,150	\$395,157
California.....	848,798.19	846,558.39	2,239.80	126	59.00	397	1,011	330,815
San Diego.....	31,379.72	31,684.92	305.20			18	29	8,575
San Francisco	817,418.47	814,873.47	2,545.00	126	59.00	379	982	321,740
Oregon	127,010.68	100,000.34	27,010.34			71	119	54,814
Southern Oregon	1,170.00	943.00	227.00			3	6	800
Yaquina	600.00	420.00	180.00			1	1	300
Willamette	125,240.68	98,637.34	26,603.34			67	112	53,714
Washington—Puget sound.....	18,667.08	18,345.59	321.49			10	20	10,028

a Deficit.

TABLE 18.—FISHING VESSELS—NUMBER, TONNAGE, OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF FISHING VESSELS NOT ENGAGED IN THE TRANSPORTATION OF FISHERY PRODUCTS AS FREIGHT. (a)

STEAMERS AND SAILING VESSELS.

PORTS.	Num- ber.	Ton- nage.	Value.	Trips.	Miles.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	84	10,715	\$692,455	1,183	406,638	\$719,872.25	\$697,836.45	\$22,035.80	790	\$34.97	866	1,485	\$247,028.56

STEAMERS.

Total	24	4,343	411,500	857	117,400	277,308.91	307,796.52	530,487.61	190	40.79	136	532	114,834.93
San Francisco, California	14	3,960	341,000	627	104,350	241,440.46	275,746.67	534,306.21	173	40.35	95	364	99,158.93
Yaquina, Oregon	1	106	25,000	4	1,400	19,350.00	15,531.40	3,818.60	8	45.00	13	117	5,670.00
Oregon, Oregon	5	185	24,000	26	6,650	12,192.00	12,192.00		5	50.00	12	32	6,120.00
Willamette, Oregon	3	79	20,000	200	5,000	4,326.45	4,326.45		3	41.67	13	16	3,571.00
Puget sound, Washington	1	13	1,500	(c)	(c)	(c)	(c)	(c)	1	35.00	3	3	315.00

SAILING VESSELS.

Total	60	6,372	280,955	326	289,238	442,563.34	390,039.93	52,523.41	600	33.13	730	953	132,193.63
San Diego, California	2	31	2,625	34	10,432	6,810.00	2,155.70	4,654.30	8	27.50	7	7	1,463.25
San Francisco, California	40	5,866	239,900	75	233,476	404,077.40	351,987.22	52,090.18	513	33.85	614	810	107,178.72
Oregon, Oregon	10	137	12,730	210	7,610	6,087.95	4,665.75	1,422.20	13	23.68	19	19	2,912.00
Puget sound, Washington	8	338	25,700	7	37,720	25,587.99	31,231.26	55,643.27	71	29.85	90	117	20,637.66

a Including whalers and sealers.

b Deficit.

c Not reported.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 19.—HARBOR TUGS—NUMBER, TONNAGE, VALUE, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF HARBOR TUGS AND OTHER FLOATING CHANNEL PROPERTY.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	70	6,109	\$1,120,800	\$765,305.72	\$678,220.48	\$87,085.24	25	\$42.59	374	573	\$247,630.49
California.....	52	4,279	833,500	626,727.37	544,108.54	82,618.83	21	42.13	274	352	191,706.30
San Diego	4	294	28,500	11,127.75	14,300.12	a3,172.37			14	19	6,778.15
Wilmington	1	89	22,000	3,058.22	3,151.15	a92.93			7	15	1,243.15
San Francisco	44	3,626	732,000	566,031.40	486,103.66	79,927.74	19	41.30	230	295	166,950.00
Humboldt	3	270	51,000	46,510.00	40,553.61	5,956.39	2	50.00	23	23	16,735.00
Oregon	9	484	108,300	28,265.54	23,431.80	4,833.74	2	50.00	35	45	17,323.56
Southern Oregon	2	100	21,100	6,082.72	4,775.81	1,306.91			7	7	3,309.66
Yaquina	2	126	44,500	14,814.29	12,914.29	1,900.00			11	15	9,401.40
Oregon	1	14	2,000	1,200.00	534.20	665.80	1	60.00	3	6	390.00
Willamette	4	244	40,700	6,168.53	5,207.50	961.03	1	40.00	14	17	4,222.50
Washington—Puget sound ..	9	1,346	179,000	110,312.81	110,680.14	a367.33	2	40.00	65	176	38,600.63

a Deficit.

TABLE 20.—PILOT BOATS—NUMBER, TONNAGE, VALUE, EXPENSE ACCOUNT, AND DETAILS OF CREWS AND WAGES OF PILOT BOATS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Expenses.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	9	418	\$49,700	\$35,706.73	14	\$33.77	31	71	\$16,310
San Diego, California	1	20	3,000	2,750.00	1	22.75	3	3	2,250
Wilmington, California	1	8	2,500	1,750.00	1	25.00	3	3	1,440
San Francisco, California	4	230	24,500	24,236.72	9	35.00	17	57	8,820
Oregon, Oregon	2	141	19,000	5,468.36	2	40.00	5	5	2,700
Puget sound, Washington	1	19	700	1,501.65	1	30.00	3	3	1,040

TABLE 21.—YACHTS AND PLEASURE BOATS—NUMBER, TONNAGE, VALUE, AND DETAILS OF CREWS AND WAGES OF YACHTS AND PLEASURE BOATS.

STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	28	675	\$75,800	16	\$36.68	36	45	\$8,685.44

STEAMERS.

Total	3	63	6,500			5	6	234.00
San Diego, California	1	18	2,500			2	2	34.00
Puget sound, Washington	2	45	4,000			3	4	200.00

SAILING VESSELS.

Total	25	612	69,300	16	36.68	31	39	8,451.44
San Diego, California	7	101	8,500	4	25.00	8	13	930.00
Wilmington, California	4	98	7,500	2	35.00	6	7	1,680.00
San Francisco, California	13	405	52,800	9	42.25	15	17	5,528.00
Puget sound, Washington	1	8	500	1	36.68	2	2	313.44

TRANSPORTATION ON THE PACIFIC COAST.

217

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 22.—NO TRAFFIC REPORT—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS AND SAILING VESSELS OVER FIVE TONS REGISTERED OR OWNED ON THE PACIFIC COAST IN 1889 FOR WHICH NO TRAFFIC REPORT WAS RECEIVED.

STEAMERS AND SAILING VESSELS.

CUSTOMS DISTRICTS.	TOTAL.			OUT OF COMMISSION.			OTHERWISE NOT REPORTED ON. (a)		
	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Total	123	12,067	\$550,875	74	8,312	\$410,400	49	3,755	\$140,475

STEAMERS.

Total	42	5,867	347,600	33	5,416	303,100	9	451	44,500.
California	17	2,026	142,200	15	1,970	131,200	2	50	11,000.
Wilmington	4	88	17,000	4	88	17,000			
San Francisco	12	1,874	122,200	10	1,824	111,200	2	50	11,000
Humboldt,	1	64	3,000	1	64	3,000			
Oregon	17	2,975	169,400	13	2,685	141,400	4	290	28,000.
Yaquina	2	956	92,000	2	956	92,000			
Oregon	2	76	10,500	1	19	500	1	57	10,000
Willamette	13	1,943	66,900	10	1,710	48,900	3	233	18,000
Washington—Puget sound	8	866	36,000	5	755	30,500	3	111	5,500.

SAILING VESSELS.

Total	81	6,200	203,275	41	2,696	107,300	40	3,304	95,975.
California	48	5,362	175,750	22	2,632	94,250	26	2,730	81,500
San Diego	4	87	2,500	2	44	1,000	2	43	1,500
San Francisco	43	5,094	168,750	20	2,588	93,250	23	2,506	75,500.
Humboldt	1	181	4,500				1	181	4,500
Oregon	13	476	11,950	8	142	6,650	5	334	5,300.
Oregon	10	192	8,000	7	129	6,500	3	63	1,500.
Willamette	3	284	3,950	1	13	150	2	271	3,800.
Washington—Puget sound	20	362	15,575	11	122	6,400	9	240	9,175.

(a) Lost prior to or during 1889, sold to foreign owners, or untraceable.

STATISTICS OF TRANSPORTATION.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—NUMBER, TONNAGE, VALUE, TRAFFIC OPERATIONS, FINANCIAL ACCOUNT, AND DETAILS OF CREWS AND WAGES OF ALL VESSELS OF EVERY CLASS OF OCCUPATION OVER FIVE TONS REGISTERED OR OWNED ON THE PACIFIC COAST IN 1889, GROUPED BY DISTRICTS.

ALL CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total steam, sail, and unrigged.....	1,842	441,939	\$23,067,370	673,853	12,680,153	8,818,363	4,019,329

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total steam, sail, and unrigged.....	\$20,628,316.28	\$17,274,809.30	\$3,353,506.98	4,302	\$38.36	12,181	33,656	\$6,127,450.69

STEAMERS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	531	170,503	\$15,526,455	634,541	6,883,500	5,741,940	4,019,329
San Diego, California.....	8	800	62,500	39,158	43,867	20	545,558
Ferry.....	3	488	31,500	39,158	43,867	20	545,558
Harbor tugs	4	294	28,500				
Yachts	1	18	2,500				
Wilmington, California.....	10	933	188,500	410	48,752	144,726	12,305
Freight and passenger.....	5	756	149,500	410	48,752	144,726	12,305
Harbor tugs	1	89	22,000				
No traffic report	4	88	17,000				
San Francisco, California.....	223	104,149	9,459,405	157,470	3,311,446	2,420,955	242,354
Freight and passenger.....	136	72,626	7,479,705	19,218	2,304,871	2,420,955	173,906
Ferry	17	22,063	784,500	137,625	902,225		68,448
Fish	14	3,960	341,000	627	104,350		
Harbor tugs	44	3,626	732,000				
No traffic report	12	1,874	122,200				
Humboldt, California.....	10	785	82,500	3,506	23,407	118,682	24,960
Freight and passenger.....	6	451	28,500	3,506	23,407	118,682	24,960
Harbor tugs	3	270	51,000				
No traffic report	1	64	5,000				
Southern Oregon, Oregon.....	15	771	70,600	6,706	98,222	119,499	33,880
Freight and passenger.....	12	651	48,300	6,522	96,566	119,499	32,385
Ferry.....	1	20	1,200	184	1,656		1,275
Harbor tugs	2	100	21,100				
Yaquina, Oregon	13	2,281	287,400	4,004	69,558	31,583	15,722
Freight and passenger	7	1,077	125,000	2,928	67,050	31,491	14,597
Ferry.....	1	16	900	1,072	1,108	92	1,125
Fish	1	106	25,000	4	1,400		
Harbor tugs	2	126	44,500				
No traffic report	2	956	92,000				
Oregon, Oregon.....	41	3,172	284,100	13,718	282,726	242,130	98,006
Freight and passenger.....	33	2,897	247,600	13,692	276,076	242,130	98,006
Fish	5	185	24,000	26	6,650		
Harbor tugs	1	14	2,000				
No traffic report	2	76	10,500				
Willamette, Oregon	96	44,404	3,850,100	364,898	1,351,979	512,465	2,550,915
Freight and passenger.....	62	40,391	3,606,300	81,400	1,148,752	498,664	630,477
Ferry.....	14	1,747	116,200	283,298	198,227	13,801	1,620,438
Fish	3	79	20,000	200	5,000		
Harbor tugs	4	244	40,700				
No traffic report	13	1,943	66,900				

TRANSPORTATION ON THE PACIFIC COAST.

219

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—Continued.

STEAMERS—Continued.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Puget sound, Washington.....	115	13,208	\$1,241,350	44,671	1,653,603	2,151,880	495,649
Freight and passenger.....	93	10,642	975,850	32,045	1,620,708	2,151,021	393,398
Ferry.....	2	296	45,000	12,626	32,895	859	102,251
Fish.....	1	13	1,500	(a)	(a)		
Harbor tugs.....	9	1,346	179,000				
Yachts.....	2	45	4,000				
No traffic report.....	8	866	36,000				

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total.....	\$13,237,222.20	\$11,446,602.77	\$1,790,529.52	1,141	\$14.99	66,818	18,068	\$63,682,061.61
San Diego, California.....	42,507.47	45,985.04	c3,477.57			34	50	15,387.15
Ferry.....	31,379.72	31,684.92	c305.20			18	29	8,575.00
Harbor tugs.....	11,127.75	14,300.12	c3,172.37			14	19	6,778.15
Yachts.....						2	2	34.00
Wilmington, California.....	64,406.14	63,576.84	829.30	4	45.00	56	97	27,069.60
Freight and passenger.....	61,347.92	60,425.69	922.23	4	45.00	49	82	25,828.45
Harbor tugs.....	3,058.22	3,151.15	c92.93			7	15	1,243.15
San Francisco, California.....	8,015,094.94	6,872,414.76	1,142,680.18	973	45.50	3,974	11,381	2,243,532.18
Freight and passenger.....	6,390,204.61	5,295,690.96	1,094,513.65	655	44.38	3,270	9,740	1,655,683.25
Ferry.....	817,418.47	814,873.47	2,545.00	126	59.00	379	982	321,740.00
Fish.....	241,440.46	275,746.67	c34,306.21	173	40.35	95	364	99,158.93
Harbor tugs.....	566,031.40	486,103.66	79,927.74	19	41.30	230	295	166,950.00
Humboldt, California.....	102,488.21	87,232.30	15,255.91	2	50.00	46	67	38,489.00
Freight and passenger.....	55,978.21	46,678.69	9,299.52			23	44	21,754.00
Harbor tugs.....	46,510.00	40,553.61	5,956.39	2	50.00	23	23	16,735.00
Southern Oregon, Oregon.....	56,499.33	42,405.36	14,093.97			52	69	30,093.66
Freight and passenger.....	49,246.61	36,686.55	12,560.06			42	56	25,984.00
Ferry.....	1,170.00	943.00	227.00			3	6	800.00
Harbor tugs.....	6,082.72	4,775.81	1,306.91			7	7	3,309.66
Yaquina, Oregon.....	119,227.63	128,260.54	c9,032.91	14	45.00	85	318	51,524.71
Freight and passenger.....	84,463.34	99,394.85	c14,931.51	6	45.00	60	185	36,153.31
Ferry.....	600.00	420.00	180.00			1	1	300.00
Fish.....	19,350.00	15,531.40	3,818.60	8	45.00	13	117	5,670.00
Harbor tugs.....	14,814.29	12,914.29	1,900.00			11	15	9,401.40
Oregon, Oregon.....	212,478.11	167,249.00	45,229.11	17	42.65	183	537	95,437.37
Freight and passenger.....	199,086.11	154,522.80	44,563.31	11	37.73	168	499	88,927.37
Fish.....	12,192.00	12,192.00		5	50.00	12	32	6,120.00
Harbor tugs.....	1,200.00	534.20	665.80	1	60.00	3	6	390.00
Willamette, Oregon.....	3,383,404.26	3,050,676.43	332,727.83	111	42.20	1,562	3,446	742,945.66
Freight and passenger.....	3,247,668.60	2,942,505.14	305,163.46	107	42.24	1,468	3,301	681,438.16
Ferry.....	125,240.68	98,637.34	26,603.34			67	112	53,714.00
Fish.....	4,326.45	4,326.45		3	41.67	13	16	3,571.00
Harbor tugs.....	6,168.53	5,207.50	961.03	1	40.00	14	17	4,222.50
Puget sound, Washington.....	1,241,116.20	988,892.50	252,223.70	20	37.51	826	2,103	437,582.28
Freight and passenger.....	1,112,136.31	859,866.77	252,269.54	17	37.36	745	1,900	388,438.05
Ferry.....	18,667.08	18,345.59	321.49			10	20	10,028.00
Fish.....	(a)	(a)	(a)	1	35.00	3	3	315.00
Harbor tugs.....	110,312.81	110,680.14	c367.33	2	40.00	65	176	38,600.63
Yachts.....						3	4	200.00

a Not reported.

b Includes unrigged.

c Deficit.

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—Continued.

SAILING VESSELS.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total	822	208,080	\$6,715,570	39,312	5,796,593	2,761,826	
San Diego, California	21	461	36,975	100	25,706	2,300	
Freight	7	222	20,350	66	15,274	2,300	
Fish	2	31	2,625	34	10,432		
Pilot boats	1	20	3,000				
Yachts	7	101	8,530				
No traffic report	4	87	2,500				
Wilmington, California	13	694	37,400	229	26,436	7,571	
Freight	8	588	27,400	229	26,436	7,571	
Pilot boats	1	8	2,500				
Yachts	4	98	7,500				
San Francisco, California	649	158,519	5,434,100	35,243	5,005,589	2,351,598	
Freight	549	146,924	4,948,150	35,168	4,772,113	2,351,598	
Fish	40	5,866	239,900	75	233,476		
Pilot boats	4	230	24,500				
Yachts	13	405	52,800				
No traffic report	43	5,094	168,750				
Humboldt, California	14	3,272	245,500	836	102,663	40,124	
Freight	13	3,091	241,000	836	102,663	40,124	
No traffic report	1	181	4,500				
Southern Oregon, Oregon:							
Freight	1	90	8,000	21	8,920	2,916	
Oregon, Oregon	36	690	50,080	1,774	27,352	21,097	
Freight	14	220	10,350	1,564	19,742	21,097	
Fish	10	137	12,730	210	7,610		
Pilot boats	2	141	19,000				
No traffic report	10	192	8,000				
Willamette, Oregon	6	1,996	38,985	23	30,400	10,037	
Freight	3	1,712	35,035	23	30,400	10,037	
No traffic report	3	284	3,950				
Puget sound, Washington	82	42,358	864,530	1,086	569,527	326,183	
Freight	52	41,631	822,055	1,079	531,807	326,183	
Fish	8	338	25,700	7	37,720		
Pilot boats	1	10	700				
Yachts	1	8	500				
No traffic report	20	362	15,575				

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total	\$7,391,093.99	\$5,828,116.53	\$1,562,977.46	3,161	\$35.96	5,363	15,568	\$2,445,389.06
San Diego, California	20,200.00	14,457.80	5,742.20	14	32.00	38	56	8,788.80
Freight	10,640.00	9,552.10	1,087.90	6	40.46	20	33	4,143.73
Fish	6,810.00	2,155.70	4,654.30	3	27.50	7	7	1,465.25
Pilot boats	2,750.00	2,750.00		1	22.75	3	3	2,250.00
Yachts				4	25.00	8	13	800.00
Wilmington, California	27,283.54	25,932.89	1,350.65	17	35.00	38	70	16,321.00
Freight	25,533.54	24,182.89	1,350.65	14	35.71	29	60	13,201.00
Pilot boats	2,750.00	1,750.00		1	25.00	3	3	1,440.00
Yachts				2	35.00	6	7	1,680.00

a Gross earnings includes the boats' earnings only; professional earnings of the pilots are not included.

TRANSPORTATION ON THE PACIFIC COAST.

221

GENERAL OPERATIONS BY CLASSES—Continued.

TABLE 23.—SUMMARY—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
San Francisco, California.....	\$6,176,246.99	\$4,829,511.95	\$1,346,735.04	2,585	\$36.00	4,345	13,164	\$2,025,721.44
Freight.....	5,747,932.87	4,453,288.01	1,294,644.86	2,054	36.51	3,699	12,280	1,904,194.72
Fish.....	404,077.40	851,987.22	52,090.18	513	33.85	614	810	107,178.72
Pilot boats.....	a24,236.72	24,236.72		9	35.00	17	57	8,820.00
Yachts.....				9	42.25	15	17	5,528.00
Humboldt, California:								
Freight.....	100,634.07	79,320.25	21,313.82	52	34.04	100	254	45,235.15
Southern Oregon, Oregon:								
Freight.....	6,387.00	5,936.00	451.00	4	40.00	7	7	3,500.00
Oregon, Oregon.....	30,932.05	21,437.63	9,494.42	21	26.50	54	67	16,060.75
Freight.....	19,375.74	11,303.52	8,072.22	6	27.68	30	43	10,388.75
Fish.....	6,087.95	4,665.75	1,422.20	13	23.88	19	19	2,912.00
Pilot boats.....	a5,468.36	5,468.36		2	40.00	5	5	2,760.00
Willamette, Oregon:								
Freight.....	55,795.31	37,543.89	18,251.42	17	25.00	32	53	13,140.00
Puget sound, Washington.....	973,615.03	813,976.12	159,638.91	451	36.94	749	1,917	316,621.76
Freight.....	946,525.39	781,243.21	165,282.18	378	38.29	654	1,795	294,030.66
Fish.....	25,587.99	31,231.26	b5,643.27	71	29.85	90	117	20,637.66
Pilot boats.....	a1,501.65	1,501.65		1	30.00	3	3	1,040.00
Yachts.....				1	36.68	2	2	313.44

UNRIGGED CRAFT.

CUSTOMS DISTRICTS.	Number.	Tonnage.	Value.	Trips.	Miles.	Freight moved. (Tons.)	Passengers carried.
Total.....	489	63,356	\$825,345			314,597	
San Diego, California.....	28	1,966	12,975			33,064	
Wilmington, California.....	33	3,935	62,000			(c)	
San Francisco, California.....	146	27,082	506,700			27,000	
Humboldt, California.....	22	2,290	19,525			2,900	
Southern Oregon, Oregon.....	93	3,026	20,690			55,860	
Yaquina, Oregon.....	3	40	200			(c)	
Oregon, Oregon.....	28	1,491	13,810			(c)	
Willamette, Oregon.....	34	11,002	109,400			32,030	
Puget sound, Washington.....	102	12,524	80,045			163,743	

CUSTOMS DISTRICTS.	Gross earnings.	Expenses.	Net earnings.	Common seamen employed.	Average wages per month paid common seamen.	Number making ordinary crews.	Total number of men employed.	Total wages paid during year.
Total.....								
San Diego, California.....								
Wilmington, California.....								
San Francisco, California.....								
Humboldt, California.....	(c)	(c)	(c)	(c)	(c)	(c)	(c)	(c)
Southern Oregon, Oregon.....								
Yaquina, Oregon.....								
Oregon, Oregon.....								
Willamette, Oregon.....								
Puget sound, Washington.....								

a Gross earnings includes the boats' earnings only; professional earnings of the pilots are not included.

b Deficit.

c Included in steamers.

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS.

TABLE 24.—STEAMERS AND UNRIGGED CRAFT IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUE OF STEAMERS AND UNRIGGED CRAFT IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	ALL CRAFT.			STEAMERS.			UNRIGGED CRAFT.		
	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Total.....1880..	534	125,090.48	\$6,620,980	319	97,004.88	\$6,477,500	215	28,085.60	\$142.88
.....1889..	1,020	233,859.00	16,351,800	531	170,503.00	15,526,455	489	63,356.00	25.16
California.....1880..	266	73,507.80	3,873,380	217 ^a	58,828.80	3,763,200	88	14,679.00	110.24
.....1889..	480	141,940.00	10,394,105	251	106,067.00	9,792,905	229	35,273.00	601.28
Oregon.....1880..	198	43,657.54	2,207,700	89	31,370.94	2,177,000	109	12,286.60	38.78
.....1889..	323	66,187.00	4,636,300	165	50,628.00	4,492,200	158	15,559.00	144.18
Washington.....1880..	70	7,925.14	539,900	52	6,805.14	537,300	18	1,120.00	2.00
.....1889..	217	25,732.00	1,321,395	115	13,208.00	1,241,350	102	12,524.00	69.66

^a Exclusive of Pacific Mail interests owned in New York.**TABLE 25.—STEAMERS BY CLASSES IN 1880 AND 1889—NUMBER, TONNAGE, AND VALUE OF STEAMERS IN 1880 AND 1889, GIVEN BY CLASSES, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.**

CLASSES AND YEARS.	Number.	Tonnage.	Value.
Total.....1880..	319	97,004.88	\$6,477,500
.....1889..	531	170,503.10	15,526,455
Passenger and freight.....1880..	224	70,392.43	4,414.80
.....1889..	354	129,490.38	12,600.75
Ferry.....1880..	32	21,993.99	1,429.10
.....1889..	38	24,629.26	979.30
Towing and harbor.....1880..	52	4,558.49	614.00
.....1889..	70	6,109.51	1,120.30
Miscellaneous.....1880..	11	59.97	18.90
.....1889..	60	10,273.95	765.60

TABLE 26.—GROSS EARNINGS OF STEAMERS IN 1880 AND 1889—GROSS EARNINGS OF STEAMERS OPERATING IN 1880 AND 1889, TOGETHER WITH THE AMOUNT PAID OUT IN WAGES DURING THOSE YEARS, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.	Gross earnings.	Paid in wages.
Total.....1880..	\$6,362,770	\$1,953,451
.....1889..	13,237,222	3,682,062
California.....1880..	4,011,084	1,158,200
.....1889..	8,224,497	2,324,478
Oregon.....1880..	1,983,703	602,576
.....1889..	3,771,609	920,002
Washington.....1880..	367,983	192,075
.....1889..	1,241,116	437,582

TABLE 27.—STEAMERS' CREWS AND WAGES IN 1880 AND 1889—NUMBER OF MEN CONSTITUTING ORDINARY CREWS EMPLOYED ON STEAMERS OPERATING IN 1880 AND 1889, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES, TOGETHER WITH WAGES PAID AND AVERAGES OF ANNUAL PAY AND DECREASE OR INCREASE PER MAN, GIVEN BY LOCALITIES.

STATES AND YEARS.	Total number men, ordinary crews.	Total wages paid.	Average annual wages per man.	Average annual decrease in wages per man.
Total.....1880..	3,008	\$1,953,451	\$649.42	.....
.....1889..	6,818	3,682,062	540.65	\$108.57
California.....1880..	1,970	1,158,200	587.92	.....
.....1889..	4,110	2,324,478	566.57	22.35
Oregon.....1880..	788	602,576	764.09	.....
.....1889..	1,882	920,002	488.84	275.25
Washington.....1880..	250	192,075	770.70	.....
.....1889..	826	437,582	529.76	240.94

TRANSPORTATION ON THE PACIFIC COAST.

223:

COMPARATIVE STATISTICS—Continued.

TABLE 28.—STEAMER TRAFFIC IN 1880 AND 1889—NUMBER OF TONS OF FREIGHT MOVED AND NUMBER OF PASSENGERS CARRIED BY STEAMERS AND UNRIGGED CRAFT OPERATING IN 1880 AND 1889, GIVEN BY LOCALITIES, AS REPORTED BY THE TENTH AND ELEVENTH CENSUSES.

STATES AND YEARS.		FREIGHT IN TONS.			PASSENGERS.		
		Total.	By steamers.	By unriggered craft.	Total.	Regular.	Ferry.
Total	1880..	2,087,293	2,087,293		6,604,712	300,752	6,303,960.
	1889..	8,488,101	8,173,504	314,597	15,672,093	1,380,234	614,291,859.
California	1880..	1,561,256	1,561,256		6,309,502	140,650	6,168,852.
	1889..	5,178,911	5,115,947	62,964	12,477,941	211,171	612,266,770.
Oregon	1880..	476,898	476,898		159,903	66,615	93,288
	1889..	993,567	905,677	87,890	2,698,503	775,665	1,922,838
Washington	1880..	49,139	49,139		135,307	93,487	41,820.
	1889..	2,315,623	2,151,880	163,743	495,649	393,398	102,251

a Including railroad ferry freight.

b Including railroad ferry passengers.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT REGISTERED IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST FOR THE TEN YEARS, 1880-1889.

1880.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,124	270,801.75	305	110,414.61	752	148,400.41	67	11,966.73
California	884	202,114.30	171	75,965.35	652	117,970.52	61	8,178.43.
San Diego	17	975.26	2	147.94	15	827.32		
San Francisco	867	201,139.04	169	75,817.41	637	117,143.20	61	8,178.43.
Oregon	135	39,657.63	91	28,808.00	38	7,041.33	6	3,808.30.
Southern Oregon	12	662.09	12	662.09				
Oregon	46	2,360.79	17	1,037.86	29	1,322.93		
Willamette	77	36,634.75	62	27,108.05	9	5,718.40	6	3,808.30.
Washington—Puget sound	105	29,029.82	43	5,641.26	62	23,388.56		

1881.

Total	1,128	284,425.60	310	112,434.54	748	158,940.98	70	13,050.08.
California	868	202,906.59	168	75,336.06	639	119,392.10	61	8,178.43.
San Diego	21	1,053.94	2	147.94	19	906.00		
San Francisco	847	201,852.65	166	75,188.12	620	118,486.10	61	8,178.43.
Oregon	143	43,500.70	98	31,761.16	37	6,906.41	8	4,833.22.
Southern Oregon	12	661.17	12	661.17				
Oregon	44	2,270.04	18	1,399.90	26	870.14		
Willamette	87	40,569.58	68	29,700.09	11	6,036.27	8	4,833.22.
Washington—Puget sound	117	38,018.22	44	5,337.32	72	32,642.47	1	38.43.

1882.

Total	1,166	300,766.83	326	120,434.81	772	167,351.44	68	12,980.45.
California	887	211,126.02	170	75,385.21	656	127,562.38	61	8,178.43.
San Diego	27	3,068.17	5	255.23	22	2,812.94		
San Francisco	860	208,057.85	165	75,129.98	634	124,749.44	61	8,178.43.
Oregon	156	52,568.56	106	39,380.46	43	8,386.08	7	4,802.02.
Southern Oregon	12	660.95	12	660.95				
Oregon	50	3,770.80	20	1,521.21	30	2,249.59		
Willamette	94	48,136.81	74	37,198.30	13	6,136.49	7	4,802.02.
Washington—Puget sound	123	37,072.25	50	5,669.27	73	31,402.98		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—Continued.

1883.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,169	326,944.94	349	134,435.75	812	186,538.21	8	5,972.98
California.....	884	230,168.26	185	87,293.86	699	142,874.40		
San Diego	22	1,357.96	5	622.63	17	735.33		
Wilmington	9	1,071.64	3	533.90	6	537.74		
San Francisco	842	225,864.51	174	85,961.13	668	139,903.38		
Humboldt	11	1,874.15	3	176.20	8	1,697.95		
Oregon.....	145	52,994.69	102	39,155.01	35	7,866.70	8	5,972.98
Southern Oregon.....	12	706.15	12	706.15				
Oregon	46	3,432.44	22	1,686.07	24	1,746.37		
Willamette	87	48,856.10	68	36,762.79	11	6,120.33	8	5,972.98
Washington—Puget sound	140	43,781.99	62	7,966.88	78	35,795.11		

1884.

Total	1,202	334,188.81	384	146,561.82	818	187,626.99		
California.....	875	233,440.22	185	97,377.34	690	136,062.88		
San Diego	14	344.45	4	209.31	10	135.14		
Wilmington	11	1,422.54	3	533.90	8	888.64		
San Francisco	823	227,673.06	169	95,620.02	654	132,053.04		
Humboldt	27	4,000.17	9	1,014.11	18	2,966.06		
Oregon	163	50,798.48	121	40,182.07	42	10,616.41		
Southern Oregon	11	866.34	11	866.34				
Yaquina	5	1,295.29	5	1,295.29				
Oregon	57	3,887.45	30	2,107.43	27	1,780.02		
Willamette	90	44,749.40	75	35,913.01	15	8,836.39		
Washington—Puget sound	164	49,950.11	78	9,002.41	86	40,947.70		

1885.

Total	1,250	360,110.56	402	153,808.04	840	200,329.54	8	5,972.98
California.....	900	251,142.60	194	101,757.24	706	149,385.36		
San Diego.....	11	380.97	2	120.58	9	260.39		
Wilmington	12	831.93	3	236.55	9	595.38		
San Francisco	854	246,876.05	180	100,386.00	674	146,490.05		
Humboldt	23	3,053.65	9	1,014.11	14	2,039.54		
Oregon.....	184	59,191.81	129	42,626.54	47	10,562.29	8	5,972.98
Southern Oregon	14	1,554.19	12	1,417.39	2	136.80		
Yaquina	5	1,307.39	5	1,307.39				
Oregon	66	4,113.55	35	2,320.26	31	1,793.29		
Willamette	99	52,216.68	77	37,581.50	14	8,662.20	8	5,972.98
Washington—Puget sound	166	49,776.15	79	9,424.26	87	40,351.89		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—FLEETS FOR THE TEN YEARS, 1880-1889—Continued.

1889.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,367	435,004.14	517	180,496.04	841	248,429.78	9	6,078.32
California.....	957	314,227.08	249	122,405.03	708	191,822.05		
San Diego.....	30	1,630.92	8	1,136.01	22	494.91		
Wilmington.....	19	1,570.68	7	889.64	12	681.04		
San Francisco.....	880	306,178.34	222	119,177.69	658	187,000.65		
Humboldt.....	28	4,847.14	12	1,201.69	16	3,645.45		
Oregon	196	51,238.13	148	39,543.21	40	5,721.94	8	5,972.98
Southern Oregon.....	15	779.11	13	660.65	2	118.46		
Yaquina.....	11	2,360.85	11	2,360.85				
Oregon.....	72	5,391.03	40	3,003.96	32	2,387.07		
Willamette.....	98	42,707.14	84	33,517.75	6	3,216.41	8	5,972.98
Washington—Puget sound.....	214	69,538.93	120	18,547.80	93	50,885.79	1	106.34

RECAPITULATION FOR THE TEN YEARS.

1880.....	1,124	270,801.75	305	110,414.61	752	148,400.41	67	11,966.72
1881.....	1,128	284,425.60	310	112,434.54	748	158,940.98	70	13,050.06
1882.....	1,166	300,766.83	326	120,434.94	772	167,351.44	68	12,960.45
1883.....	1,169	328,944.94	349	134,435.75	812	186,538.21	8	5,972.98
1884.....	1,202	334,188.81	384	146,561.82	818	187,620.99		
1885.....	1,250	360,110.56	402	153,808.04	840	200,329.54	8	5,972.98
1886.....	1,253	347,059.73	416	156,320.30	829	184,766.45	8	5,972.98
1887.....	1,217	355,814.58	426	160,139.75	783	189,701.85	8	5,972.98
1888.....	1,293	399,173.18	459	168,268.58	826	224,931.62	8	5,972.98
1889.....	1,367	435,004.14	517	180,496.04	841	248,429.78	9	6,078.32

TRANSPORTATION ON THE PACIFIC COAST.

227

COMPARATIVE STATISTICS—Continued.

TABLE 30.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	1,124	270,801.75	240.93	1,128	284,425.60	252.15	1,166	300,766.83	257.95	1,169	326,944.94	279.68	1,202	334,188.81	278.03
California	884	202,114.30	228.64	868	202,906.59	233.76	887	211,126.02	238.02	884	230,168.26	260.37	875	233,440.22	266.79
San Diego	17	975.26	57.37	21	1,053.94	50.19	27	3,068.17	113.64	22	1,357.96	61.73	14	344.45	24.60
Wilmington										9	1,071.64	119.07	11	1,422.54	129.32
San Francisco	867	201,139.04	231.99	847	201,852.65	238.31	860	208,057.85	241.93	842	225,864.51	268.25	823	227,673.06	276.64
Humboldt										11	1,874.15	170.38	27	4,000.17	148.15
Oregon	135	39,657.63	293.76	143	43,500.79	304.20	156	52,568.56	336.98	145	52,904.69	365.48	163	50,798.48	311.66
Southern Oregon ..	12	662.09	55.17	12	661.17	55.10	12	660.96	55.08	12	706.15	58.85	11	866.34	78.76
Yaquina													5	1,295.29	259.06
Oregon	46	2,360.79	51.32	44	2,270.04	51.59	50	3,770.80	75.42	46	3,432.44	74.62	57	3,887.45	68.20
Willamette	77	36,684.75	475.78	87	40,569.58	466.32	94	48,136.81	512.09	87	48,856.10	561.56	90	44,749.40	497.22
Washington — Puget sound.	105	29,029.82	276.47	117	38,018.22	324.94	123	37,072.25	301.40	140	43,781.99	312.73	164	49,950.11	304.57

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	1,250	360,110.56	288.09	1,253	347,059.73	274.98	1,217	355,814.58	292.37	1,293	390,173.18	306.72	1,367	435,004.14	318.22
California	900	251,142.60	279.05	885	248,132.93	280.38	864	254,092.29	294.09	917	281,131.83	306.58	957	314,227.08	328.35
San Diego	11	880.97	34.63	13	203.00	15.62	21	2,519.64	119.98	31	2,167.62	69.92	30	1,630.92	54.36
Wilmington	12	831.98	69.33	13	919.70	70.75	15	1,737.64	115.84	18	2,598.41	144.36	19	1,570.68	82.67
San Francisco	854	246,876.05	289.08	833	243,413.77	292.21	803	246,699.65	307.22	837	271,063.19	323.85	880	306,178.34	347.93
Humboldt	23	3,053.65	132.77	26	3,596.46	138.33	25	3,135.36	125.41	31	5,302.61	171.05	28	4,847.14	173.11
Oregon	184	59,191.81	321.69	191	56,806.43	297.42	188	52,261.69	277.99	185	53,317.28	288.20	196	51,238.13	261.42
Southern Oregon ..	14	1,554.19	111.01	14	763.07	54.51	12	554.39	46.20	12	548.10	45.68	15	779.11	51.94
Yaquina	5	1,307.39	261.48	6	1,466.59	234.43	10	3,332.84	333.28	9	2,202.75	244.75	11	2,360.85	214.62
Oregon	66	4,113.55	62.33	68	2,816.20	41.41	65	3,352.49	51.58	67	4,462.93	66.61	72	5,391.03	74.68
Willamette	99	52,216.68	527.44	103	51,820.57	503.11	101	45,021.97	445.76	97	46,103.50	475.29	98	42,707.14	435.79
Washington — Puget sound.	166	49,776.15	299.86	177	42,120.37	237.97	165	49,460.60	299.76	191	64,724.07	338.87	214	69,538.93	324.95

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 31.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL STEAMERS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total	305	110,414.61	362.02	310	112,434.54	362.69	326	120,434.94	369.43	349	134,435.75	385.20	384	146,561.82	381.6
California	171	75,965.35	444.24	168	75,336.06	448.43	170	75,385.21	443.44	185	87,293.96	471.86	185	97,377.34	528.4
San Diego	2	147.94	73.97	2	147.94	73.97	5	255.23	51.05	5	622.63	124.53	4	209.31	52.3
Wilmington										3	533.90	177.97	3	533.90	177.97
San Francisco	109	75,817.41	448.62	166	75,188.12	452.94	165	75,129.98	455.33	174	85,961.13	494.03	169	95,620.02	565.8
Humboldt										3	176.20	58.73	9	1,014.11	112.68
Oregon	91	28,808.00	316.57	98	31,761.16	324.09	106	39,380.46	371.51	102	39,155.01	383.87	121	40,182.07	332.86
Southern Oregon ..	12	662.09	55.17	12	661.17	55.10	12	660.95	55.08	12	706.15	58.85	11	866.34	78.76
Yaquina													5	1,295.29	259.46
Oregon	17	1,037.86	61.05	18	1,399.90	77.77	20	1,521.21	76.06	22	1,686.07	76.64	30	2,107.43	70.25
Willamette	62	27,108.05	437.23	68	29,700.09	436.77	74	37,198.30	502.68	68	36,762.79	540.63	75	35,913.01	478.64
Washington — Puget sound.	43	5,641.26	131.19	44	5,337.32	121.30	50	5,669.27	113.39	62	7,986.88	128.82	78	9,002.41	115.42

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total	402	153,808.04	382.61	416	156,320.30	375.77	426	160,139.75	375.91	459	168,268.58	366.60	517	180,496.04	349.12
California	194	101,757.24	524.52	198	103,591.98	523.19	203	111,049.41	547.04	225	115,976.96	515.45	249	122,405.03	491.89
San Diego	2	120.58	60.29	2	34.16	17.08	4	443.45	110.86	7	1,088.50	155.50	8	1,136.01	142.06
Wilmington	3	236.55	78.85	3	307.93	102.64	3	307.93	102.64	5	580.95	116.19	7	889.64	127.09
San Francisco	180	100,386.00	557.70	183	102,178.08	558.35	187	109,606.05	586.13	204	113,725.12	557.48	222	119,177.69	536.84
Humboldt	9	1,014.11	112.68	10	1,071.81	107.18	9	691.88	76.82	9	582.39	64.71	12	1,201.69	100.14
Oregon	129	42,626.54	330.44	132	42,517.08	322.10	137	38,697.60	282.46	136	40,616.88	298.65	148	39,543.21	267.18
Southern Oregon ..	12	1,417.39	118.12	11	608.31	55.30	11	538.08	48.92	12	548.10	45.68	13	660.65	50.82
Yaquina	5	1,307.39	261.48	6	1,406.59	234.43	10	3,332.84	333.28	9	2,202.75	244.75	11	2,360.85	214.62
Oregon	35	2,320.26	66.29	34	2,161.17	63.56	33	2,318.73	70.26	34	2,188.38	64.36	40	3,003.96	75.19
Willamette	77	37,581.50	488.07	81	38,341.01	473.35	83	32,507.95	391.66	81	35,677.65	440.46	84	33,517.75	399.02
Washington — Puget sound.	79	9,424.26	119.29	86	10,211.24	118.74	86	10,392.74	120.85	98	11,674.74	119.13	120	18,547.80	154.37

TRANSPORTATION ON THE PACIFIC COAST.

229

COMPARATIVE STATISTICS—Continued.

TABLE 32.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL SAILING VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	752	148,400.41	197.34	748	158,940.98	212.49	772	167,351.44	216.78	812	186,586.21	229.72	818	187,626.99	229.37
California	652	117,970.52	180.94	639	119,392.10	186.84	656	127,562.38	194.45	699	142,874.40	204.40	690	136,062.88	197.19
San Diego	15	827.32	55.15	19	906.00	47.68	22	2,812.94	127.86	17	735.83	43.25	10	135.14	13.51
Wilmington										6	537.74	89.62	8	888.64	111.08
San Francisco	637	117,143.20	183.90	620	118,486.10	191.11	634	124,749.44	196.77	668	139,903.38	209.44	654	132,053.04	201.92
Humboldt										8	1,697.85	212.24	18	2,966.06	165.89
Oregon	38	7,041.33	185.30	37	6,906.41	186.66	43	8,386.08	195.03	35	7,866.70	224.76	42	10,616.41	252.77
Southern Oregon															
Oregon	29	1,322.93	45.62	26	870.14	33.47	30	2,249.59	74.99	24	1,746.37	72.77	27	1,780.02	65.93
Willamette	9	5,718.40	635.38	11	6,036.27	548.75	13	6,136.49	472.04	11	6,120.33	556.39	15	8,836.39	589.09
Washington — Puget sound.	62	23,388.56	377.23	72	32,642.47	453.37	73	31,402.98	430.18	78	35,795.11	458.91	86	40,947.70	476.14

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.		Num-ber.	Tonnage.	
		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.		Total.	Aver-age.
Total	840	200,329.54	238.49	829	184,766.45	222.88	783	189,701.85	242.28	826	224,931.62	272.31	841	248,429.78	295.40
California	706	149,385.36	211.59	687	144,540.95	210.39	661	143,042.88	216.40	692	165,154.87	238.66	708	191,822.05	270.94
San Diego	9	260.39	28.93	11	168.84	15.35	17	2,076.19	122.13	24	1,079.12	44.96	22	494.91	22.50
Wilmington	9	595.38	66.15	10	611.77	61.18	12	1,429.71	119.14	13	2,017.46	155.19	12	681.04	56.75
San Francisco	674	146,490.05	217.34	650	141,235.69	217.29	616	137,093.00	222.55	633	157,338.07	248.56	658	187,000.65	284.20
Humboldt	14	2,039.54	145.68	16	2,524.66	157.79	16	2,443.98	152.75	22	4,720.22	214.56	16	3,645.45	227.84
Oregon	47	10,562.29	225.37	51	8,316.37	163.07	43	7,591.11	176.54	41	6,727.42	164.08	40	5,721.94	143.05
Southern Oregon	2	136.80	68.40	3	154.76	51.59	1	16.31	16.31	.....	.....	.....	2	118.46	59.23
Oregon	31	1,793.29	57.85	34	655.03	19.27	32	1,083.76	32.31	33	2,274.55	68.93	32	2,387.07	74.60
Willamette	14	8,062.20	618.73	14	7,508.58	536.18	10	6,541.04	654.10	8	4,452.87	556.61	6	3,216.41	536.07
Washington — Puget sound.	87	40,351.80	463.81	91	31,909.13	350.65	79	39,067.86	494.58	93	53,049.33	570.42	93	50,885.79	547.16

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 33.—AGGREGATES AND AVERAGES FOR THE TEN YEARS, 1880-1889—NUMBER, AGGREGATE TONNAGE, AND AVERAGE TONNAGE OF ALL UNRIGGED CRAFT REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total	67	11,988.73	178.91	70	13,050.08	186.43	68	12,980.45	190.89	8	5,972.98	746.62			
San Francisco, Califor- nia.	61	8,178.43	134.07	61	8,178.43	134.07	61	8,178.43	134.07						
Willamette, Oregon....	6	3,808.30	634.73	8	4,833.22	604.15	7	4,802.02	688.00	8	5,972.98	746.62			
Puget sound, Washing- ton.				1	38.43	38.43									

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.		Num- ber.	Tonnage.	
		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.		Total.	Aver- age.
Total	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	9	6,078.32	675.37
San Francisco, Califor- nia.															
Willamette, Oregon....	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62	8	5,972.98	746.62
Puget sound, Washing- ton.													1	105.34	105.34

TABLE 34.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF ALL CRAFT AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.								FLUCTUATIONS IN TONNAGE.							
	Annual average number of vessels regis- tered.	Highest above average.		Lowest below average.		Closest to average.		Fluc- tuation in num- ber.	Annual average regis- tered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluc- tuation in ton- nage.
		Year.	Num- ber.	Year.	Num- ber.	Year.	Num- ber.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	
Total	1,217	1889	1,367	1880	1,124	1887	1,217	243	341,429	1889	435,004	1880	270,802	1886	347,060	164,262
California	892	1889	957	1887	864	1882	887	93	242,848	1889	314,227	1880	202,114	1886	248,133	112,112
San Diego	21	1888	31	1885	11	1881	21	20	1,370	1882	3,068	1886	203	1883	1,358	2,065
Wilmington	14	1889	19	1883	9	1886	13	10	1,450	1888	2,598	1885	832	1884	1,423	1,706
San Francisco	845	1889	880	1887	803	1881	847	77	237,882	1889	306,178	1880	201,139	1886	243,414	105,030
Humboldt	24	1888	31	1883	11	1887	25	20	3,687	1888	5,303	1883	1,874	1886	3,506	3,429
Oregon.....	169	1889	196	1880	135	1884	163	61	51,234	1885	59,192	1880	39,658	1889	51,238	19,534
Southern Oregon.....	13	1889	15	1884	11	1880	12	4	776	1885	1,554	1888	548	1889	779	1,006
Yaquina.....	8	1889	11	1884	5	1888	9	6	1,984	1887	3,333	1884	1,293	1888	2,203	2,006
Oregon	58	1889	72	1881	44	1884	57	28	3,586	1889	5,391	1881	2,270	1883	3,432	3,121
Willamette	93	1886	103	1880	77	1882	94	26	45,682	1885	52,217	1880	36,635	1888	46,104	15,582
Washington—Puget sound ..	156	1889	214	1880	105	1884	164	109	47,347	1889	69,539	1880	29,030	1887	49,461	40,509

COMPARATIVE STATISTICS—Continued.

TABLE 35.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF STEAMERS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.								FLUCTUATIONS IN TONNAGE.							
	Annual average number of vessels registered.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in number.	Annual average registered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in tonnage.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	
Total	389	1889	517	1880	305	1884	384	212	144,331	1889	180,496	1880	110,415	1884	146,562	70,681
California	195	1889	249	1881	168	1885	194	81	96,614	1889	122,405	1881	75,336	1884	97,377	47,069
San Diego	4	1889	8	1880	2	1884	4	6	421	1889	1,136	1886	34	1887	443	1,102
Wilmington	4	1889	7	1883	3	1883	3	4	484	1889	890	1885	237	1883	534	653
San Francisco	182	1889	222	1882	165	1886	183	57	95,279	1889	119,178	1882	75,130	1884	95,620	44,048
Humboldt	9	1889	12	1883	3	1884	9	9	822	1889	1,202	1883	176	1887	691	1,026
Oregon	120	1889	148	1880	91	1884	121	57	38,329	1885	42,627	1880	28,808	1887	38,698	13,819
Southern Oregon	12	1889	13	1884	11	1880	12	2	733	1885	1,417	1887	538	1883	706	879
Yaquina	8	1889	11	1884	5	1888	9	6	1,984	1887	3,333	1884	1,295	1888	2,203	2,038
Oregon	28	1889	40	1880	17	1884	30	23	1,974	1889	3,004	1880	1,038	1884	2,107	1,966
Willamette	75	1889	84	1880	62	1884	75	22	34,431	1886	38,341	1880	27,108	1889	33,518	11,233
Washington—Puget sound ..	75	1889	120	1880	43	1884	78	77	9,389	1889	18,548	1881	5,337	1885	9,424	13,211

TABLE 36.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF SAILING VESSELS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.								FLUCTUATIONS IN TONNAGE.							
	Annual average number of vessels registered.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in number.	Annual average registered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in tonnage.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	
Total	802	1889	841	1881	748	1883	812	98	189,702	1889	248,430	1880	148,400	1887	189,702	100,030
California	679	1889	708	1881	639	1886	687	69	143,781	1889	191,822	1880	117,971	1887	143,043	73,851
San Diego	17	1888	24	1885	9	1883	17	15	950	1882	2,813	1884	135	1881	906	2,678
Wilmington	10	1888	13	1883	6	1886	10	7	966	1888	2,017	1883	538	1884	889	1,479
San Francisco	644	1888	674	1887	616	1882	650	58	140,149	1889	187,001	1880	117,143	1883	139,903	69,858
Humboldt	16	1888	22	1885	8	1886	16	14	2,865	1888	4,720	1883	1,698	1884	2,986	3,022
Oregon	42	1886	51	1883	35	1884	42	16	7,977	1884	10,616	1889	5,722	1883	7,867	4,894
Southern Oregon	2	1886	3	1887	1	1885	2	2	107	1886	155	1887	16	1889	118	139
Oregon	30	1886	34	1883	24	1882	30	10	1,611	1889	2,387	1886	655	1883	1,746	1,732
Willamette	11	1884	15	1889	6	1881	11	9	6,323	1884	8,836	1889	3,216	1882	6,136	5,620
Washington—Puget sound ..	81	1888	93	1880	62	1887	79	31	37,944	1888	53,049	1880	23,389	1887	39,008	29,600

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 37.—FLUCTUATIONS FOR THE TEN YEARS, 1880-1889—AVERAGE ANNUAL NUMBER OF UNRIGGED CRAFT AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

CUSTOMS DISTRICTS.	FLUCTUATIONS IN NUMBER.								FLUCTUATIONS IN TONNAGE.							
	Annual average number of vessels registered.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in number.	Annual average registered tonnage.	Highest above average.		Lowest below average.		Closest to average.		Fluctuation in tonnage.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Tonnage.	Year.	Tonnage.	Year.	Tonnage.	
Total.....	28	1881	70	1883	8	1889	9	62	8,218	1881	13,050	1883	5,973	1889	6,078	7,077
San Francisco.....	61								8,178							
Willamette, Oregon.....	8			1880	6	1881	8	2	5,470	1883	5,973	1880	3,808	1883	5,973	2,165
Puget sound, Washington...	1								72	1889	105	1881	38	1889	105	67

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT BUILT IN THE CUSTOMS DISTRICTS OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889.

1880.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	41	8,943.04	25	7,642.61	15	937.44	1	362.99
California—San Francisco.....	18	5,795.16	7	4,948.85	11	846.31		
Oregon.....	16	2,465.56	13	2,027.40	2	75.17	1	362.99
Southern Oregon.....	2	56.33	1	5.43	1	50.90		
Oregon	2	46.84	1	22.57	1	24.27		
Willamette	12	2,362.39	11	1,999.40			1	362.99
Washington—Puget sound	7	662.32	5	666.36	2	15.96		

1881.

Total	58	11,417.49	21	3,010.41	36	7,382.15	2	1,024.93
California—San Francisco	26	4,555.70	5	1,358.62	21	3,197.08		
Oregon.....	22	4,330.89	13	1,616.50	7	1,689.46	2	1,024.93
Southern Oregon.....	1	388.59			1	388.59		
Oregon	4	303.41	2	280.74	2	22.67		
Willamette	17	3,638.89	11	1,335.76	4	1,278.20	2	1,024.93
Washington—Puget sound	10	2,530.90	3	35.29	7	2,495.61		

1882.

Total	74	15,770.52	28	6,727.35	46	9,043.17		
California.....	36	6,997.62	11	3,620.53	25	3,377.09		
San Diego.....	2	265.90	1	18.56	1	247.34		
San Francisco.....	34	6,731.72	10	3,601.97	24	3,129.75		
Oregon.....	20	4,835.71	10	2,699.81	10	2,136.90		
Southern Oregon	6	1,068.29			6	1,068.29		
Oregon.....	6	614.32	4	222.86	2	391.46		
Willamette	8	3,153.10	6	2,476.95	2	676.15		
Washington—Puget sound	18	3,937.19	7	407.01	11	3,530.18		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued.

1886.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	58	5,913.92	23	3,023.31	35	2,890.61		
California	29	3,064.22	9	2,039.24	20	1,044.98		
San Diego	2	26.12			2	26.12		
San Francisco	25	2,855.14	8	1,981.54	17	873.60		
Humboldt	2	202.96	1	57.70	1	145.26		
Oregon	16	1,351.49	9	624.86	7	726.63		
Southern Oregon	2	610.16			2	610.16		
Oregon	5	136.40	1	33.02	4	103.38		
Willamette	9	604.93	8	591.84	1	13.69		
Washington—Puget sound	13	1,478.21	5	350.21	8	1,119.00		

1887.

Total	71	9,106.24	32	3,750.45	39	5,355.79		
California	36	4,388.04	12	2,241.14	24	2,146.90		
San Diego	1	8.28			1	8.28		
San Francisco	33	3,758.45	12	2,241.14	21	1,517.31		
Humboldt	2	621.31			2	621.31		
Oregon	13	1,227.17	14	1,117.48	2	109.69		
Southern Oregon	3	263.10	2	174.27	1	88.83		
Yaquina	1	65.49	1	65.49				
Oregon	6	341.63	5	320.77	1	20.86		
Willamette	6	556.95	6	556.95				
Washington—Puget sound	19	3,491.03	6	391.83	13	3,099.20		

1888.

Total	104	21,956.43	55	12,710.22	48	9,140.87	1	105.34
California	60	11,490.77	28	8,683.04	32	2,807.73		
San Diego	6	793.03	4	745.80	2	47.23		
Washington	3	75.24	1	36.48	2	38.76		
San Francisco	47	9,687.31	22	7,891.60	25	1,795.71		
Humboldt	4	935.19	1	9.16	3	926.03		
Oregon	23	4,702.19	17	3,141.59	6	1,560.60		
Southern Oregon	3	651.75	2	154.89	1	496.86		
Yaquina	1	91.56	1	91.56				
Oregon	10	1,302.33	5	238.59	5	1,063.74		
Willamette	9	2,656.55	9	2,656.55				
Washington—Puget sound	21	5,763.47	10	885.59	10	4,772.54	1	105.34

TRANSPORTATION ON THE PACIFIC COAST.

235

COMPARATIVE STATISTICS—Continued.

TABLE 38.—SHIPBUILDING FOR THE TEN YEARS, ALL CRAFT, 1880-1889—Continued.

1880.

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		UNRIGGED CRAFT.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	110	17,909.48	71	12,734.30	39	5,175.18		
California	55	9,497.96	34	7,790.70	21	1,707.26		
San Diego	2	38.59			2	38.59		
San Francisco	48	8,606.65	31	7,551.16	17	1,055.49		
Humboldt	5	852.72	3	239.54	2	613.18		
Oregon	30	4,159.91	21	2,873.36	9	1,286.55		
Southern Oregon	4	1,169.82			4	1,169.82		
Yaquina	3	220.11	3	220.11				
Oregon	13	544.42	8	427.69	5	116.73		
Willamette	10	2,225.56	10	2,225.56				
Washington—Puget sound	25	4,251.61	16	2,070.24	9	2,181.37		

RECAPITULATION FOR THE TEN YEARS.

Total for 10 years	764	129,368.73	369	68,351.18	390	58,353.33	5	2,664.22
1880	41	8,943.04	25	7,642.61	15	937.44	1	362.90
1881	58	11,417.49	21	3,010.41	35	7,382.15	2	1,024.93
1882	74	15,770.52	28	6,727.35	46	9,043.17		
1883	91	16,737.97	34	4,019.17	56	11,547.84	1	1,170.96
1884	84	10,612.36	42	5,865.99	42	4,746.37		
1885	73	11,001.28	38	8,867.37	35	2,133.91		
1886	58	5,913.92	23	3,023.31	35	2,890.61		
1887	71	9,106.24	32	3,750.45	39	5,355.79		
1888	104	21,956.43	55	12,710.22	48	9,140.87	1	105.34
1889	110	17,909.48	71	12,734.30	39	5,175.18		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 39.—SHIPBUILDING FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN EACH CUSTOMS DISTRICT OF THE PACIFIC COAST DURING THE TEN YEARS 1880-1889, CLASSIFIED AS PROPELLERS AND SIDE-WHEEL AND STERN-WHEEL STEAMERS.

1880.

CUSTOMS DISTRICTS.	METHODS OF PROPULSION.							
	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	25	7,642.61	10	402.48	9	5,804.35	6	1,435.78
California—San Francisco	7	4,948.85	4	264.28	2	4,630.01	1	54.58
Oregon	13	2,027.40	4	75.52	6	701.68	3	1,250.20
Southern Oregon	1	5.43	1	5.43				
Oregon	1	22.57	1	22.57				
Willamette	11	1,999.40	2	47.52	6	701.68	3	1,250.20
Washington—Puget sound	5	666.38	2	62.70	1	472.68	2	131.00

1881.

Total	21	3,010.41	10	887.12	4	325.06	7	1,798.23
California—San Francisco	5	1,358.62	3	422.08			2	936.54
Oregon	13	1,616.50	4	429.75	4	325.06	5	861.09
Oregon	2	280.74	1	23.06			1	257.68
Willamette	11	1,335.76	3	406.69	4	325.06	4	604.01
Washington—Puget sound	3	35.29	2	85.29				

1882.

Total	28	6,727.35	15	3,915.90	3	253.10	10	2,558.35
California	11	3,620.53	8	3,442.91	2	163.33	1	14.29
San Diego	1	18.56			1	18.56		
San Francisco	10	3,601.97	8	3,442.91	1	144.77	1	14.29
Oregon	10	2,699.81	3	286.09	1	89.77	6	2,321.95
Oregon	4	222.86	2	25.38			2	197.48
Willamette	6	2,476.95	1	260.71	1	89.77	4	2,126.47
Washington—Puget sound	7	407.01	4	186.90			3	220.11

1883.

Total	34	4,019.17	27	3,097.03			7	922.14
California—San Francisco	11	2,408.96	10	2,375.23			1	33.73
Oregon	14	878.09	11	438.23			3	439.86
Southern Oregon	1	58.74	1	58.74				
Oregon	9	562.47	7	290.29			2	272.18
Willamette	4	256.88	3	89.20			1	167.68
Washington—Puget sound	9	732.12	6	283.57			3	448.55

TRANSPORTATION ON THE PACIFIC COAST.

237

COMPARATIVE STATISTICS—Continued.

TABLE 29.—SHIPBUILDING FOR THE TEN YEARS, STEAMERS, 1880-1889—Continued.

1884.

CUSTOMS DISTRICTS.	METHODS OF PROPULSION.							
	All steamers.		Propeller.		Side-wheel.		Stern-wheel.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	42	5,865.99	24	1,428.00	6	2,583.37	12	1,854.62
California	13	3,963.79	7	860.66	2	2,182.37	4	920.76
San Francisco	12	3,880.32	7	860.66	2	2,182.37	3	837.29
Humboldt	1	83.47					1	83.47
Oregon	15	976.93	10	370.06	4	401.00	1	205.87
Southern Oregon	1	104.50	1	104.50				
Oregon	6	317.01	5	111.14			1	205.87
Willamette	8	555.42	4	154.42	4	401.00		
Washington—Puget sound	14	925.27	7	197.28			7	727.91

1885.

Total	38	8,867.37	22	3,219.04	5	2,966.51	11	2,649.82
California—San Francisco	14	4,764.02	8	1,773.89	1	1,257.14	5	1,732.99
Oregon	16	3,075.35	10	978.35	3	1,685.64	3	411.36
Southern Oregon	2	208.91	2	208.91				
Oregon	5	347.61	4	317.08			1	30.53
Willamette	9	2,518.83	4	452.36	3	1,685.64	2	380.83
Washington—Puget sound	8	1,028.00	4	466.80	1	55.73	3	505.47

1886.

Total	23	3,023.31	13	1,145.71			10	1,877.60
California	9	2,039.24	4	818.74			5	1,220.50
San Francisco	8	1,981.54	4	818.74			4	1,162.80
Humboldt	1	57.70					1	57.70
Oregon	9	624.86	6	155.88			3	468.98
Oregon	1	33.02	1	33.02				
Willamette	8	591.84	5	122.86			3	468.96
Washington—Puget sound	5	359.21	3	171.09			2	188.12

1887.

Total	32	3,750.45	26	2,720.48	2	347.62	4	682.35
California—San Francisco	12	2,241.14	11	1,932.60	1	308.54		
Oregon	14	1,117.48	11	621.26	1	39.08	2	457.14
Southern Oregon	2	174.27	2	174.27				
Yaquina	1	65.49	1	65.49				
Oregon	5	320.77	5	320.77				
Willamette	6	556.95	3	60.73	1	39.08	2	457.14
Washington—Puget sound	6	391.83	4	166.62			2	225.21

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 39.—SHIPBUILDING FOR THE TEN YEARS, STEAMERS, 1880-1889—Continued.

1888.

CUSTOMS DISTRICTS.	METHODS OF PROPULSION.							
	All steamers.		Propeller.		Side-wheel.		Stern-wheel	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	55	12,710.22	43	7,749.66	3	2,427.60	9	2,532.96
California	28	8,683.04	27	6,698.59	1	2,014.45		
San Diego	4	745.80	4	745.80				
Wilmington	1	36.48	1	36.48				
San Francisco	22	7,891.60	21	5,877.15	1	2,014.45		
Humboldt	1	9.16	1	9.16				
Oregon	17	3,141.59	9	710.48	1	316.46	7	2,114.65
Southern Oregon	2	154.89	2	154.89				
Yaquina	1	91.56	1	91.56				
Oregon	5	238.59	3	120.21			2	118.38
Willamette	9	2,656.55	3	343.82	1	316.46	5	1,996.27
Washington—Puget sound	10	885.59	7	370.59	1	96.69	2	418.31

1889.

Total	71	12,734.30	51	7,163.33	5	1,393.61	15	4,177.36
California	34	7,790.70	27	5,914.72	1	119.72	6	1,756.76
San Francisco	31	7,551.16	26	5,904.55	1	119.72	4	1,526.89
Humboldt	3	239.54	1	10.17			2	229.37
Oregon	21	2,873.36	15	701.49	1	659.41	5	1,512.46
Yaquina	3	220.11	3	220.11				
Oregon	8	427.69	7	329.62			1	96.07
Willamette	10	2,225.56	5	151.76	1	659.41	4	1,414.39
Washington—Puget sound	16	2,070.24	9	547.12	3	614.48	4	908.64

RECAPITULATION FOR THE TEN YEARS.

Total for 10 years	369	68,351.18	241	31,728.75	37	16,133.22	91	20,489.21
1880	25	7,642.61	10	402.48	9	5,804.35	6	1,435.78
1881	21	3,010.41	10	887.12	4	325.06	7	1,798.23
1882	28	6,727.35	15	3,915.90	3	253.10	10	2,558.35
1883	34	4,019.17	27	3,097.03			7	922.14
1884	42	5,865.99	24	1,428.60	6	2,583.37	12	1,854.62
1885	38	8,867.37	22	3,219.04	5	2,908.51	11	2,649.82
1886	23	3,023.31	13	1,145.71			10	1,877.60
1887	32	3,750.45	26	2,720.48	2	347.62	4	682.35
1888	55	12,710.22	43	7,749.66	3	2,427.60	9	2,532.96
1889	71	12,734.30	51	7,163.33	5	1,393.61	15	4,177.36

TRANSPORTATION ON THE PACIFIC COAST.

239

CONGRESSIONAL APPROPRIATIONS.

TABLE 40.—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF RIVERS AND HARBORS ON THE PACIFIC COAST, BY PERIODS, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, BY LOCALITIES.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
Total	1852	\$2,315,000	\$5,527,200	\$2,122,600	\$9,964,800
General expenses and surveys	1866	50,000			50,000
California	1852	1,158,000	2,283,750	596,500	4,038,250
Oregon	1866	1,107,000	3,164,950	1,493,100	5,765,050
Washington	1880		78,500	33,000	111,500
California:					
Humboldt harbor	1881		80,000		80,000
	1884		62,500		62,500
	1886		75,000		75,000
	1888		125,000		125,000
	1890			80,000	80,000
Total for Humboldt harbor	1881		342,500	80,000	422,500
Oakland harbor	1874	415,000			415,000
	1880		120,000		120,000
	1882		200,000*		200,000
	1884		139,600		139,600
	1886		60,000		60,000
	1888		350,000		350,000
	1890			250,000	250,000
Total for Oakland harbor	1874	415,000	869,600	250,000	1,534,600
Petaluma river	1880		16,000		16,000
	1882		14,000		14,000
	1888		2,000		2,000
	1890			4,000	4,000
Total for Petaluma river	1880		32,000	4,000	36,000
Sacramento and Feather rivers	1875	50,000			50,000
	1880		45,000		45,000
	1881		60,000		60,000
	1882		250,000		250,000
	1884		40,000		40,000
	1888		20,000		20,000
	1890			30,000	30,000
Total for Sacramento and Feather rivers	1875	50,000	415,000	30,000	495,000
San Diego harbor and river (survey of San Diego and Newport)	1852	111,000			111,000
	1886		5,000		5,000
	1888		1,000		1,000
	1890			60,500	60,500
Total for San Diego harbor and river	1852	111,000	6,000	60,500	177,500
San Francisco harbor	1872	75,000			75,000
	1886		11,000		11,000
Total for San Francisco harbor	1872	75,000	11,000		86,000
San Joaquin river	1876	20,000			20,000
	1880		20,000		20,000
	1881		80,000		80,000
	1884		20,000		20,000
	1886		18,750		18,750
	1888		25,000		25,000
	1890			75,000	75,000
Total for San Joaquin river	1876	20,000	163,750	75,000	258,750
San Luis Obispo harbor	1888		25,000		25,000
	1890			40,000	40,000
Total for San Luis Obispo harbor	1888		25,000	40,000	65,000

STATISTICS OF TRANSPORTATION.

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 10.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
California—Continued.					
Wilmington harbor.....	1879	\$487,000			\$487,000
	1880		\$35,000		35,000
	1881		33,000		33,000
	1882		100,000		100,000
	1884		50,000		50,000
	1886		75,000		75,000
	1888		90,000		90,000
	1890			\$34,000	34,000
Total for Wilmington harbor.....	1879	487,000	383,000	34,000	904,000
Mokelumne river.....	1884		8,500		8,500
	1886		2,500		2,500
	1888		2,000		2,000
Total for Mokelumne river.....	1884		13,000		13,000
Napa river.....	1888		7,500		7,500
	1890			10,000	10,000
Total for Napa river.....	1888		7,500	10,000	17,500
Redwood harbor.....	1884		3,000		3,000
	1886		5,000		5,000
	1888		7,400		7,400
Deep water harbor survey (\$5,000).....	1890			13,000	13,000
Total for Redwood harbor.....	1884		15,400	13,000	28,400
Total for Humboldt harbor.....	1881		342,500	80,000	422,500
Total for Oakland harbor.....	1871	415,000	869,600	250,000	1,534,600
Total for Petaluma river.....	1880		32,000	4,000	36,000
Total for Sacramento and Feather rivers.....	1875	50,000	415,000	30,000	495,000
Total for San Diego harbor and river.....	1852	111,000	6,000	60,500	177,500
Total for San Francisco harbor.....	1872	75,000	11,000		86,000
Total for San Joaquin river.....	1876	20,000	163,750	75,000	258,750
Total for San Luis Obispo harbor.....	1888		25,000	40,000	65,000
Total for Wilmington harbor.....	1879	487,000	383,000	34,000	904,000
Total for Mokelumne river.....	1884		13,000		13,000
Total for Napa river.....	1888		7,500	10,000	17,500
Total for Redwood harbor.....	1884		15,400	13,000	28,400
Total for California.....	1852	1,158,000	2,283,750	506,500	4,008,250
Oregon:					
Coos bay.....	1879	40,000			40,000
	1881		90,000		90,000
	1886		33,750		33,750
	1888		50,000		50,000
	1890			125,000	125,000
Total for Coos bay.....	1879	40,000	173,750	125,000	338,750
Willamette (upper) and Yamhill.....	1871	84,500			84,500
	1880		12,000		12,000
	1881		15,000		15,000
	1882		5,000		5,000
	1884		10,000		10,000
	1886		10,000		10,000
	1888		29,000		29,000
	1890			11,000	11,000
Total for Willamette and Yamhill.....	1871	84,500	81,000	11,000	176,500

TRANSPORTATION ON THE PACIFIC COAST.

241

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropria- tion.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total Appropriations up to date.
<i>Oregon—Continued.</i>					
Willamette (lower) and Columbia	1866	\$300,000			\$300,000
	1880		\$45,000		45,000
	1881		45,000		45,000
	1882		100,000		100,000
	1884		100,000		100,000
	1886		75,000		75,000
	1888		100,000		100,000
	1890			\$100,000	100,000
Total for Willamette and Columbia.....	1866	300,000	465,000	100,000	865,000
Total for Willamette and Yamhill.....	1871	84,500	81,000	11,000	176,500
Total for Willamette, Columbia, and Yamhill.....	1866	384,500	546,000	111,000	1,041,500
Columbia (upper) and Snake rivers.....	1872	160,000			160,000
	1880		15,000		15,000
	1881		15,000		15,000
	1882		6,000		6,000
	1884		20,000		20,000
	1886		10,000		10,000
	1888		10,000		10,000
	1890			90,000	90,000
Total for Columbia and Snake rivers.....	1872	160,000	76,000	90,000	326,000
Columbia at Cascades	1876	340,000			340,000
	1880		200,000		200,000
	1882		265,000		265,000
	1884		150,000		150,000
	1886		187,000		187,000
	1888		300,000		300,000
	1890			435,000	435,000
Total for Columbia at Cascades.....	1876	340,000	1,102,000	435,000	1,877,000
Lower Columbia and tributaries.....	1882		500		500
	1884		2,000		2,000
	1888		2,500		2,500
Total for lower Columbia and tributaries.....	1882		5,000		5,000
Lower Columbia at mouth.....	1878	10,000			10,000
	1882		7,500		7,500
	1884		100,000		100,000
	1886		187,500		187,500
	1888		500,000		500,000
	1890			475,000	475,000
Total for lower Columbia at mouth.....	1878	10,000	795,000	475,000	1,280,000
Total for upper Columbia and Snake rivers.....	1872	160,000	76,000	90,000	326,000
Total for Columbia at Cascades.....	1876	340,000	1,102,000	435,000	1,877,000
Total for lower Columbia and tributaries.....	1882		5,000		5,000
Total for Columbia and tributaries.....	1872	510,000	1,978,000	1,000,000	3,488,000
Yaquina bay.....	1880		40,000		40,000
	1881		10,000		10,000
	1882		60,000		60,000
	1884		50,000		50,000
	1886		75,000		75,000
	1888		150,000		150,000
	1890			165,000	165,000
Total for Yaquina bay.....	1880		385,000	165,000	550,000
Tillamook bay.....	1888		5,200		5,200
	1889			500	500
Total for Tillamook bay.....	1888		5,200	500	5,700
Nehalem bay and river.....	1890			10,000	10,000
Harbor of refuge at Port Orford.....	1879	150,000			150,000

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 40.—APPROPRIATIONS FOR PACIFIC COAST, BY LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September 19, 1890.	Total appropriations up to date.
Oregon—Continued.					
Coquille river.....	1880		\$30,000		\$30,000
	1886		20,000		20,000
	1888		25,000		25,000
	1890			\$30,000	30,000
Total for Coquille river.....	1880		75,000	30,000	105,000
Umpqua river.....	1871	\$22,500			22,500
	1888		2,000		2,000
Total for Umpqua river.....	1871	22,500	2,000		24,500
Siuslaw river.....	1890			50,000	50,000
Youngs and Klaskanine rivers.....	1890			1,600	1,600
Total for Coos bay.....	1879	40,000	173,750	125,000	338,750
Total for Willamette, Columbia, and Yamhill.....	1866	384,500	546,000	111,000	1,041,500
Total for Columbia and tributaries.....	1872	510,000	1,978,000	1,050,000	3,488,000
Total for Yaquina bay.....	1880		385,000	165,000	550,000
Total for Tillamook bay.....	1888		5,200	500	5,700
Total for Nehalem bay and river.....	1830			10,000	10,000
Total for harbor of refuge at Port Orford.....	1879	150,000			150,000
Total for Coquille river.....	1880		75,000	30,000	105,000
Total for Umpqua river.....	1871	22,500	2,000		24,500
Total for Siuslaw.....	1890			50,000	50,000
Total for Oregon.....	1866	1,107,000	3,164,950	1,493,100	5,765,050
Washington:					
Cowlitz river.....	1880		2,000		2,000
	1881		1,000		1,000
	1882		1,000		1,000
	1884		2,000		2,000
	1885		2,000		2,000
	1888		3,000		3,000
	1890			8,000	8,000
Total for Cowlitz river.....	1880		11,000	8,000	19,000
Tributaries:					
Skagit river.....	1880		2,500		2,500
Skagit and Snohomish rivers.....	1882		20,000		20,000
Stillaguamish, Skagit, and Nooksaachk rivers.....	1884		10,000		10,000
Snohomish and Nooksaachk rivers.....	1886		10,000		10,000
Skagit, Snohomish, and Nooksaachk rivers.....	1888		15,000		15,000
For all rivers.....	1890			12,000	12,000
Total for tributaries.....	1880		57,500	12,000	69,500
Total for Cowlitz river.....	1880		11,000	8,000	19,000
Total for Cowlitz river and tributaries.....	1880		68,500	20,000	88,500
Chehalis river.....	1882		3,000		3,000
	1884		5,000		5,000
	1888		2,000		2,000
	1890			3,000	3,000
Total for Chehalis river.....	1882		10,000	3,000	13,000
Canal from Lake Union to Puget sound.....	1890			10,000	10,000
Total for Cowlitz river and tributaries.....	1880		68,500	20,000	88,500
Total for Chehalis river.....	1882		10,000	3,000	13,000
Total for Washington.....	1880		78,500	33,000	111,500

TRANSPORTATION ON THE GREAT LAKES.

[WITH AN ADDENDUM REPORT ON LAKE CHAMPLAIN.]

1

TRANSPORTATION ON THE GREAT LAKES.

[WITH AN ADDENDUM REPORT ON LAKE CHAMPLAIN.]

BY THOMAS J. VIVIAN.

The Great Lakes, from which statistics of transportation are presented in the accompanying report, not only constitute one of the grandest geographical features of the North American continent, but they also afford the largest system of deep water inland navigation on the globe, containing as they do more than one-half its area of fresh water. Their combined area is 95,060 square miles, Lake Superior having 31,200, Lake Michigan 22,450, and Lakes Huron and St. Clair 24,210 square miles of surface. In the order of their topographical relationship, and considering them as vast expansions of the upper waters of the St. Lawrence river, they lie, beginning at the northwest, in the following order: Superior, Michigan, Huron, St. Clair, Erie, and Ontario. Lying in a general direction east and west, between the 41st and 47th parallels, the system extends from tidewater on the St. Lawrence and (including the Erie canal) from tidewater at New York 1,400 miles into the heart of the continent, the head of Lake Superior and the St. Lawrence tidewater being on the northernmost parallel, with Chicago and New York on the southern. The western extremity of the system is 1,700 miles only from the waters of the Pacific, and for one-half the distance between the two oceans these waters divide the Dominion from the Great Republic. The range of this fresh water system, it will be observed, is entirely within the limits of the north temperate zone, on the line on which population most freely moves westward, where final settlement is most compact, and where the climatic conditions insure the largest returns to capital and labor.

LEVELS AND WATERSHEDS.

Erie, Huron, and Michigan are nearly on the same level, the extreme difference between the first and the last named being only about 9 feet, while Superior is only 20 feet higher than Michigan, or 29 feet above Erie. In referring to the data of the levels of the Great Lakes in the chapter entitled "The physical features of the United States," the compiler of the "Statistical Atlas" for the Ninth Census says:

The divide between the Great Lakes and the waters flowing into the Mississippi and its tributaries is everywhere low, and at the lower end of Lake Michigan is so much so that only a small amount of excavation has been required to cause the waters which formerly flowed into the lake to run toward the Gulf of Mexico (via the Mississippi river).

The only great change of level between any two of the lakes is that which exists between Lake Ontario and Lake Erie, the former being 326 feet lower than the latter, about half the descent from one to the other being made in that single plunge known as the Falls of Niagara.

To what has been said may be added the geographical fact that 150 miles northwest of Duluth are the fountains of 3 of the greatest drainage systems of the continent, if not of the world, the physical conditions being such as to send flowing water northward into the ocean through Hudson bay, southward to the ocean through the Mississippi valley and the Gulf of Mexico, and eastward to the ocean through the lakes and St. Lawrence river.

The north drainage system has no traffic practicability; the commercial importance of that flowing southward is treated of in the chapter of this volume entitled "Transportation on the rivers of the Mississippi valley"; while the present chapter will show both the practicability and importance of the east drainage system.

Most of the preceding facts and figures, and many others that have not been referred to, will be found conveniently tabulated in the following statement:

LAKES.	Area of water surface (square miles).	Area of watershed (square miles).	Aggregate area of basin (square miles).	Elevation of mean surface above surface level (feet).	Maximum depth (feet).	Deepest point below surface level (feet).	Mean annual rain and snow fall (inches).	Average discharge at outlets (cubic feet).
Total	95,060	168,700	263,760	a 516.8	a 755	a 339	31	a 219,000
Lake Ontario	7,240	21,600	28,840	246.6	739	491	34	300,000
Lake Erie	9,960	22,700	32,660	572.9	210		34	265,000
Lakes Huron and St. Clair	24,210	35,100	59,310	581.3	750	169	32	225,000
Lake Michigan	22,450	37,700	60,150	581.3	870	289	30	
Lake Superior	31,200	51,600	82,800	601.8	1,008	406	29	86,000

a Average.

IMPORTANCE OF SITUATION.

Into the causes of the commercial importance of the Great Lakes it is scarcely the province of this article to enter. They constitute an accepted fact to every one at all acquainted with the geography and resources of this country, while the accompanying map will serve to indicate the extraordinary extent, productive power, and trade possibilities of the territory which is tributary to this greatest of all lacustrine systems. Debouching on the great lakes lie the states of Minnesota, Wisconsin, Illinois, Indiana, Michigan, Ohio, Pennsylvania, and New York, 8 empires embracing 416,360 square miles, which according to the present census have a population of 26,029,533; which contain the commercial metropoli of the land; whose products and demands are almost illimitable, and whose wealth is the moving financial factor of the nation. Of course there is no justifiable inference that all this population, all this producing power, all these needs, financial dictatorship, and commercial weight are tributary to the traffic of the lakes, but the fact remains that these states reach to the water's edge of either Superior, Michigan, Huron, Erie, or Ontario, and that while they are not tributary to the lakes they certainly contribute to the volume of their trade and to their importance as water ways. While this report, too, deals only with the American commerce of the lakes, it must not be forgotten that with but few exceptions they are bounded on the north by the dominion of Canada, and that the traffic of the ports along the northern shores is steadily growing. It will not be inappropriate to say here that the paramount question relating to the lake marine to-day is the construction of the so-called "20-foot channel"; for, while the great lakes are deep enough for any fleet, the connecting rivers have shoal places which seriously limit the draft of vessels passing through them. The "20-foot channel" contemplates the provision of a continuous passage of that depth through the connecting waters between Chicago, Duluth, and Buffalo, the cost of which work was estimated by General O. M. Poe to be \$2,379,058, these figures of course being outside of the then authorized improvements.

EARLY RECORDS.

It is a matter of history that in 1534 Jacques Cartier, a French navigator, acting under a commission from Francis I, sailed through the straits of Belle Isle and up the St. Lawrence; discovered Canada; landed at a point where is now situated Montreal, and took possession of this new territory in the name of the king of France. From 1603 to 1615 Samuel De Champlain, another French voyager, extended these discoveries and became the first governor of the French settlements in lower Canada. He explored Lake Champlain, gave to it his name, commenced a settlement at Quebec, and extended his explorations as far west as Lake Huron. Up to 1678 a regular sailing vessel had not been placed on the lakes, but in November of that year La Salle and Father Hennepin set sail on a schooner of 10 tons burden, which they had launched at a point near the present city of Kingston, Canada, out on Lake Ontario, and as they were unable to navigate beyond the mouth of the Niagara river, they continued their journey by land. In May, 1679, they launched the Griffin, the first sailing vessel to navigate the upper lakes, and in September, on their voyage westward, reached Green bay. The Griffin, laden with furs, was lost on the return trip, La Salle and Father Hennepin having continued their exploration to the Illinois and Mississippi rivers. From 1700 until 1756 the construction and navigation of sailing vessels was largely, if not entirely, confined to Lake Ontario.

In 1759 the English commenced to build and navigate sailing vessels upon lakes Erie and Ontario. Two sloops were launched at Oswego in 1760 named the Oswego and the Ontario, and about the same time a sloop and schooner, each of 60 tons burden, were built, while at the conquest of Canada in 1763 the English fleet was increased by the addition of the French merchant and whale vessels which then passed into the victor's possession.

Up to the time of the American Revolution there was little increase in the lake shipping, but from that time the commerce of Lake Ontario increased, and up to 1800 it exceeded the commerce of all the other lakes, although the first American steamer upon Lake Erie was built at Erie, Pennsylvania, in 1797.

Before entering upon a consideration of the lake traffic of to-day it will be well to look back for a short time to the beginnings of the trade and at the initial steps in the development of the resources of the circumjacent territory.

One of the chapters of the volume on transportation issued by the Tenth Census was entitled "History of Steam Navigation in the United States", and from that portion which treats of the Lakes the following extracts are drawn:

Previous to the war of 1812 quite a flourishing commerce was carried on upon Lake Ontario by sailing craft, but it was not till 1816 that the side-wheel steamer Ontario was built at Sacketts Harbor, going into service in April of the following year. This was the first steamer on the American side, the Frontenac coming out at about the same time on the Canadian side. The Ontario measured 231.57 tons, and had beam engines, 34-inch cylinders, of 4-foot stroke. She was broken up in 1832. The second steamer * * * was the Walk-in-the-water, which was launched at Black Rock, New York, in 1818. She was of 342 tons burden, and had low pressure engines. She arrived at Detroit August 22, 1818, on her first trip, and afterward traded as far as Mackinaw, Michigan, and was finally wrecked on the night of November 1, 1818, at Buffalo, New York. The Sophia, of 49.70 tons, was also built at Sacketts Harbor in 1818, so that up to 1820 there had been built only 4 steamers on the Lakes, including 1 steamer of 208.57 tons, built on Lake Champlain, as against 71, measuring 14,207.53 tons, on western rivers [those of the Mississippi valley], and 52, measuring 10,564.43 tons on the Atlantic coast. Within the next decade there had been built 8 steamers on the Lakes. The Superior, measuring 346.38 tons, came out at Buffalo in 1822; the Martha Ogden, 48.63 tons, at Sacketts Harbor in the following year, and the Pioneer, measuring 124.67 tons, at Buffalo in 1825, followed in 1826 by the Niagara, of 156.92 tons, the Henry Clay, of 301 tons, and at Cleveland by the Enterprise, measuring 219 tons, the William Penn, at Erie, measuring 214.71 tons, and 1 small craft of 93.82 tons, making 1,505.13 for the decade. * * * The steamer Sheldon Thompson, of 241 tons, built in 1829, made the first trip from Lake Erie to Chicago in 1832. She took up soldiers for the Black Hawk war. * * * The first steamer that arrived at Saginaw was the Governor Marcy, of 161 tons, commanded by Captain R. G. McKenzie. She went upon a regular route to that port about the year 1837. * * *

SHIPBUILDING IN THE FORTIES.

The first propeller built on the Lakes was the Vandalia, a sloop-rigged craft of about 138 tons. She was launched at Oswego in 1841. She was followed by the Oswego, of 150 tons, in 1842. In 1843 there were 7 propellers built at various points, as follows: The Hercules, 272 tons, at Buffalo; the Samson, 250 tons, at Perrysburg; the Emigrant, 275 tons, at Cleveland; the Racine, 150 tons, at Oswego; the New York, 150 tons, at Oswego; the Chicago, 150 tons, at Oswego; the Independence, 262 tons, at Chicago. In 1844 the Porter, of 310 tons, was built at Buffalo, and in 1845 the Syracuse came out at Oswego; the Princeton at Perrysburg, and the Phoenix at Cleveland. * * * The service of what is now known as the "river tugs" was inaugurated in 1845 by the side-wheel steamer Romeo, of 180 tons. She was followed by the Tecumseh, the Little Erie, the Telegraph No. 2, and the propeller Odd Fellow, in 1848. This service is now performed by a class of powerful tugs, that are used to tow sailing vessels through Detroit river, and for wrecking purposes. * * * Up to 1850 there had been built on the Lakes 50 propellers measuring 16,427 tons. * * * In 1855 the steam inspection service reported the number of steamers on the northern lakes as follows: licensed steamers, 128, measuring 68,089 tons, and unlicensed steamers, 115, measuring 21,252 tons. The next authentic statement of this tonnage was by the register of the Treasury in 1870, when 642 steamers, measuring 142,973.09 tons, were reported.

The reader who is curious to closely follow the growth of the lake fleet after the last date given in the preceding review up to the present time can do so without delay by referring to Tables 24 to 32 inclusive, or by turning to that part of this text wherein the subject is treated of under the head of "Comparative statistics."

PLAN OF THE TABLES.

For the presentation of the statistical results of the investigation by the Eleventh Census into the industry of Transportation on the Great Lakes and St. Lawrence river 33 tables have been prepared, their number and titles being as follows:

Equipment, occupation, and construction:

- Table 1.—Equipment of fleets in general.
- Table 2.—Equipment of fleets, by classes.
- Table 3.—Percentages of tonnage and valuation.
- Table 4.—Occupation, by class groups.
- Table 5.—Construction, by localities.
- Table 6.—Construction, by materials.

Traffic operations:

- Table 7.—Freight movement in general, by lakes.
- Table 8.—Freight movement in general, by principal ports.
- Table 9.—Freight movement in general (summarized).
- Table 10.—Freight receipts, by extended list of commodities.
- Table 11.—Freight shipments, by extended list of commodities.
- Table 12.—Freight movement of combined receipts and shipments, by extended list of commodities.
- Table 13.—Total freight movement, by extended list of commodities.
- Table 14.—Freight movement of unclassified commodities (A).
- Table 15.—Freight movement of unclassified commodities (B).
- Table 16.—Freight values.
- Table 17.—Freight movement, by cargo tonnage.
- Table 18.—Passenger traffic.

Earnings and expense accounts:

Table 19.—Financial account in general.

Table 20.—Expense account in detail.

Table 21.—Employés and wages, by ports.

Table 22.—Employés and wages, by lake totals.

Table 23.—Fuel account.

Comparative statistics:

Table 24.—Steamers, by classes, in 1880 and 1889.

Table 25.—Expense accounts in 1880 and 1889.

Table 26.—Crews and wages in 1880 and 1889.

Table 27.—Traffic in 1880 and 1889.

Table 28.—Fleets for the 10 years, 1880–1889.

Table 29.—Vessel tonnages for the 10 years, 1880–1889.

Table 30.—Tonnage fluctuations for the 10 years, 1880–1889.

Table 31.—Ship building for the 10 years, 1880–1889 (general).

Table 32.—Ship building for the 10 years, 1880–1889 (steamers).

Congressional appropriations:

Table 33.—Appropriations for lakes, by detailed localities.

While such a list as the preceding is useful to show at a glance the scheme on which the tabulation of the statistics has been carried out, it sometimes fails to show explicitly what a table contains, because of the necessity for condensation of titles, and in order to more clearly indicate the "Plan of the tables" the following synopsis is printed:

EQUIPMENT.

Table 1, "Equipment of fleets in general", shows the number, tonnage, and value of all steamers, sailing vessels, and unrigged craft, of over 5 tons burden, owned on the Great Lakes and St. Lawrence river in 1889, with separate entries by ports, grouped by lakes.

Table 2, entitled "Equipment of fleets, by classes", divides the entries of Table 1, separating the total number, tonnage, and value of all steamers, sailing vessels, and unrigged craft into classes, and retaining the separate entries by ports and the lake groups. The steamers are divided into 5 classes, namely, side-wheel passenger boats, propellers carrying both passengers and freight, propellers carrying freight only, tugs, and all other classes, while the sailing and unrigged vessels are divided into 3 classes, schooners, lake barges, and all other classes. By this allotment the number, tonnage, and value of each class of craft operating on the Great Lakes and St. Lawrence river may be readily seen.

OCCUPATION.

Table 3, entitled "Percentages of tonnage and valuation", gives the number, gross and net tonnage, estimated carrying capacity, commercial valuation, and value per gross ton of all vessels owned on the Great Lakes and St. Lawrence river, the great difference between this and the preceding table being that there are no entries by ports, that each lake fleet is subdivided into 17 classes of occupation, and that the percentage of both tonnage and valuation of each class to the lake totals are worked out.

Table 4, "Occupation, by class groups", gives the number, gross and net tonnage, estimated carrying capacity, commercial value, and value per gross ton of each of the 17 classes of vessels on each of the Great Lakes and St. Lawrence river, the headings in this case being the class of craft, and the entries being the respective lake totals of each class.

CONSTRUCTION.

There are 2 construction tables. The first, Table 5, "Construction, by localities", gives the number, tonnage, value, average value per ton, and average tonnage according to material of construction, of all vessels documented in the ports of the Great Lakes and St. Lawrence river, given by separate entries for each port.

The second construction table, Table 6, "Construction, by materials", gives the number, tonnage, value, average value per ton, and average tonnage of the same craft, but grouped according to material of construction, in contradistinction to the preceding table, in which the grouping is done by lakes.

TRAFFIC.

The statistics of traffic are presented in 12 tables, numbered consecutively from 7 to 18, inclusive. The first, Table 7, "Freight movement in general, by lakes", contains the receipts, shipments, total movement, percentage of traffic and commodity, excess of receipts over shipments, and excess of shipments over receipts of all freight moved on the Great Lakes and St. Lawrence river, dividing the commodities into the 4 following comprehensive classes:

Class I.—Products of agriculture.

Class II.—Products of mines and quarries.

Class III.—Other products (such as animal products and lumber).

Class IV.—Manufactures, miscellaneous merchandise, and other commodities.

This table is expanded into 6 subsidiary tables giving the receipts, shipments, and total movement of these classes of commodities, by lakes, together with the same calculations of percentages that are worked out in the table of totals.

Table 8, "Freight movement in general, by principal ports", follows the same plan of presenting the receipts, shipments, and total movement of all products, together with the percentage of traffic and commodity, except that it gives these figures for the 31 principal ports, with the smaller trading points presented together under the head of "All other ports", and a separate division or group being made for each of the 13 commodities embraced in the 4 comprehensive classes of products referred to in the preceding paragraph.

The third traffic table, Table 9, is a summarized statement of the freight movement, receipts, shipments, and total tonnage on the Great Lakes and St. Lawrence river entered up for all ports in the order of their traffic importance.

Table 10, entitled "Freight receipts, by extended list of commodities", is a statement of the receipts, by ports grouped according to their respective lakes, of a still more extended list of the articles embraced under the comprehensive heads of "Products of agriculture", "Products of mines and quarries", "Other products", and "Manufactures", the detailed list of commodities being increased from 13 to 26.

Table 11, "Freight shipments, by extended list of commodities", is a statement of the port shipments of all commodities similarly arranged with the preceding table of receipts.

Table 12, "Freight movement of combined receipts and shipments, by extended list of commodities", is a statement of both the port receipts and shipments of the articles given in Tables 10 and 11.

Table 13, "Total freight movement, by extended list of commodities", gives the receipts and shipments of all commodities by lake totals only, the detailed entries for the ports being omitted.

Table 14, "Freight movement of unclassified commodities (A)", gives the receipts and shipments by ports of those commodities for which no weight was furnished and which do not appear in the other tables, such commodities, for instance, as unweighed packages, cases, and parcels.

Table 15, "Freight movement of unclassified commodities (B)", is a description and an estimated weight in pounds of each unit of measurement mentioned in Table 14, worked out to an estimated result in tons.

Table 16. In this table, entitled "Freight values", an estimated value per ton is put on all the commodities moved, and the result in total values is worked out.

In the preceding tables of freight movement the volume of traffic was the aggregate of receipts and shipments for all ports, but in Table 17, entitled "Freight movement, by cargo tonnage", an aggregation is made of the single item of receipts or of shipments, according to whichever happened to be the larger.

Table 18. The passenger movement recorded in this table is confined to that on board steamers, is entered for the different ports for which a passenger traffic was reported, and is classified as belonging to regular passenger lines, to excursion boats, and to ferry service.

EARNINGS AND EXPENSE ACCOUNTS.

Table 19, entitled "Financial account in general", is almost a balance sheet of the industry of Water Transportation on the Great Lakes, showing, as it does, the gross earnings, expenses, and remaining net earnings of the lake fleet reporting financial operations, the entries being made for the ports of registration, with totals for those lakes to which the ports belong.

In making out Table 20, entitled "Expense account in detail", the expenses of reporting vessels, following the same division of ports of registration and lakes, are divided into the various items of port charges, wages, provisions, current repairs, fuel (for the steamers), other running expenses, commissions, insurance, taxes, and office expenses, the 10 principal items which constitute the shore and running expenses.

EMPLOYÉS.

A still further subdivision of expenses is made in Table 21, "Employés and wages, by ports". Here, however, one item only is selected, that being the interesting one of wages, and the average wages paid in each port to all grades of employés from captain to cook and from first engineer to ship's boy is given, together with the number of persons making up the ordinary crews required as the complement of all reporting craft, the number of persons receiving employment during the year in the operation of these vessels, and the average wages paid to each grade of employés in the respective ports.

Table 22, "Employés and wages, by lake totals", is really a résumé of Table 21, taking up, as it does, the total number of employés of each grade and the total monthly wages paid on the different lakes for such vessels as reported on wages and crews.

FUEL ACCOUNT.

Table 23, entitled "Fuel account", applies, of course, only to steamers. These steamers, however, are grouped under the class heads of (1) passenger, passenger and freight, and freight steamers; (2) ferryboats; (3) towboats, and (4) miscellaneous. For each of these classes and for each port the number of tons of coal and the number of cords of wood consumed in their operations are set down, together with the cost of the material.

COMPARATIVE STATISTICS.

All the tables which have been previously considered present only what may be called the positive statistics for 1889, whereas the 9 tables numbered inclusively 24 to 32 give the comparative statistics either for the 2 years 1880 and 1889 or for the 10 years 1880-1889, inclusive. In the first 4 tables the 2 years of report alone are taken into consideration, the items being gathered from the transportation volume issued by the Census Office for 1880 and from the schedules of the present inquiry. Because of the restricted scope of the inquiry by the Tenth Census, comparisons of a very limited character only can be afforded. All that is possible in this direction in fact is given in Tables 24, 25, 26, and 27, which deal respectively with the number, tonnage, and value; the expense account; the crews and wages, and the traffic in bulk of the steamer fleets, no investigation having been made into either the equipment or the operations of sailing vessels. In Table 24 a partial classification of the steamer fleet has been possible, and the equipment figures are allotted to passenger and freight boats, ferry, towing, and harbor, and miscellaneous employed steamers; but in Tables 25, 26, and 27 the unit of comparison is the very comprehensive one of a total for all the lakes, whether for the items of expenses, wages, crews, or freight and passenger traffic.

Tables 28, 29, 30, 31, and 32 have been largely made up from information furnished this office by the Commissioner of Navigation. In Table 28 there are given the figures showing the number and tonnage of all steamers, sailing vessels, and barges registered in the customs districts of the Great Lakes for the 10 years 1880-1889, inclusive.

In Table 29 the average tonnage of each steamer, sailing vessel, and barge fleet belonging to each port is worked out for the decade in question, while Table 30 gives the fluctuations from the annual average number and the annual average tonnage of all vessels registered in the different customs districts. Tables 31 and 32 are records of shipbuilding for the period in question, the first giving the number and tonnage of all steamers, sailing vessels, and barges built during those years in the various customs districts, and the second (Table 32) furnishing the data to show the number and tonnage of all steamers built in the various districts, arranged according to their methods of propulsion, that is, whether propellers or side-wheel or stern-wheel steamers.

CONGRESSIONAL APPROPRIATIONS.

The last of the tables (Table 33) gives the amounts appropriated by Congress for the survey, improvement, and maintenance of the harbors on the Great Lakes and of the rivers flowing into them, from the date of the earliest appropriation down to and including that of the act of Congress of September, 1890. These sums, so far as the grouping of periods is concerned, are given: first, up to and including 1879; second, from 1880 to 1889, inclusive; third, the appropriations in 1890, and fourth, the total appropriations from first to last. So far as localities are concerned, these sums are given with considerable detail, the items not only being furnished for each lake but for each river, bay, and harbor on which the government money has been spent.

LOCALITIES OF REGISTRATION, EQUIPMENT, AND TRAFFIC.

At the risk of introducing a long parenthesis it will be advisable, before taking up the consideration of what the tables show, to explain the various localities to which the records of registration, equipment, or traffic are allotted.

In the first place, there are on the Great Lakes and St. Lawrence river 20 ports of registration, which, grouped by states and by lakes and rivers, are as follows:

BY STATES.

Ogdensburg, New York.
Cape Vincent, New York.
Alexandria Bay, New York.
Clayton, New York.
Oswego, New York.
Rochester, New York.
Suspension Bridge, New York.
Buffalo, New York.
Dunkirk, New York.
Erie, Pennsylvania.
Cleveland, Ohio.
Sandusky, Ohio.
Toledo, Ohio.
Detroit, Michigan.
Grand Haven, Michigan.
Marquette, Michigan.
Port Huron, Michigan.
Chicago, Illinois.
Milwaukee, Wisconsin.
Duluth, Minnesota.

BY LAKES AND RIVERS.

Ogdensburg, St. Lawrence river.
Cape Vincent, St. Lawrence river.
Alexandria Bay, St. Lawrence river.
Clayton, St. Lawrence river.
Oswego, Lake Ontario.
Rochester, Lake Ontario.
Suspension Bridge, Lake Erie.
Buffalo, Lake Erie.
Dunkirk, Lake Erie.
Cleveland, Lake Erie.
Sandusky, Lake Erie.
Toledo, Lake Erie.
Erie, Lake Erie.
Grand Haven, Lake Michigan.
Chicago, Lake Michigan.
Milwaukee, Lake Michigan.
Detroit, Lake Huron.
Port Huron, Lake Huron.
Marquette, Lake Superior.
Duluth, Lake Superior.

The preceding 20 ports, called ports of registration, are those in which all the vessels of the Great Lakes are documented, and which form the recognized centers where the Treasury Department keeps its lists of vessels, their character, tonnage, and construction. In the reports on the Atlantic coast, Gulf of Mexico, and Pacific coast, these ports of registration have been strictly followed in the tabulation of the statistics of equipment and of traffic, but because of the exigencies of locality it has been found necessary to make arbitrary assignments of the statistics in both the Mississippi valley and the Great Lakes. In the report on the Mississippi valley, for instance, it will be found that the segregation of all statistics is made by the rivers and fluvial systems, while in the case of the Great Lakes and St. Lawrence river it has been found advisable to make allotment of the statistics of equipment to what may be called the ports of frequent hail, and the statistics of traffic to the ports where records of business are kept. These two lists of ports are given below:

PORTS OF ASSIGNMENT FOR STATISTICS OF EQUIPMENT.

LAKE SUPERIOR.	LAKE MICHIGAN—continued.	LAKE ERIE—continued.
Ashland, Wisconsin. Baraga, Michigan. Bayfield, Wisconsin. Duluth, Minnesota. Marquette, Michigan. Pequaming, Michigan. Republic, Michigan. St. Marys Falls, Michigan. Superior, Wisconsin.	Holland, Michigan. Kenosha, Wisconsin. Kewaunee, Wisconsin. Ludington, Michigan. Manistee, Michigan. Manitowoc, Wisconsin. Menominee, Michigan. Milwaukee, Wisconsin. Montague, Michigan. Muskegon, Michigan. North Port, Michigan. Onkama, Michigan. Pentwater, Michigan. Peshtigo, Wisconsin. Petoskey, Michigan. Racine, Wisconsin. St. James, Michigan. St. Joseph, Michigan. Saugatuck, Michigan. Sheboygan, Wisconsin. South Haven, Michigan. Spring lake, Michigan. Sturgeon bay, Wisconsin. Suttons bay, Michigan. Traverse city, Michigan. Troy, Wisconsin. Waukegan, Illinois. Waukesha, Wisconsin. Whitehall, Michigan.	Erie, Pennsylvania. Fairport, Ohio. Fremont, Ohio. Gratwick, Ohio. Huron, Ohio. Lorain, Ohio. Milan, Ohio. Norwalk, Ohio. Port Clinton, Ohio. Put in Bay, Ohio. Sandusky, Ohio. Suspension Bridge, New York. Toledo, Ohio. Tonawanda, New York. Vermilion, New York.
LAKES HURON AND ST. CLAIR.	LAKE ERIE.	LAKE ONTARIO.
Algonac, Michigan. Alpena, Michigan. Bay city, Michigan. Caseville, Michigan. Cheboygan, Michigan. Detroit, Michigan. East China, Michigan. East Saginaw, Michigan. Marine city, Michigan. Mount Clemens, Michigan. New Baltimore, Michigan. Oscoda, Michigan. Port Huron, Michigan. Saginaw, Michigan. St. Clair, Michigan.	Ashtabula, Ohio. Avon, Ohio. Buffalo, New York. Cleveland, Ohio. Dunkirk, New York.	Cape Vincent, New York. Charlotte, New York. Chaumont, New York. Hamlin, New York. Henderson, New York. Medina, New York. Oswego, New York. Pultneyville, New York. Rochester, New York. Sacketts Harbor, New York. Sodus Point, New York. Troy, New York. Wilson, New York. Youngstown, New York.
LAKE MICHIGAN.	ST. LAWRENCE RIVER.	Alexandria Bay, New York. Clayton, New York. Ogdensburg, New York.
Benton Harbor, Michigan. Charlevoix, Michigan. Chicago, Illinois. Escanaba, Michigan. Fort Howard, Wisconsin. Frankfort, Michigan. Grand Haven, Michigan. Green Bay, Wisconsin.		

PORTS OF ASSIGNMENT FOR STATISTICS OF TRAFFIC.

LAKE SUPERIOR.	LAKES HURON AND ST. CLAIR—continued.	LAKES HURON AND ST. CLAIR—continued.
Ashland, Wisconsin. Baraga, Michigan. Bay Mills, Michigan. Duluth, Minnesota. Houghton, Michigan. Marquette, Michigan. Ontonagon, Michigan. Pequaming, Michigan. St. Marys Falls, Michigan. Superior, Wisconsin. Two Harbors, Minnesota. Washburn, Wisconsin.	Alpena, Michigan. Bay city, Michigan. Black river, Michigan. Cheboygan, Michigan. Detroit, Michigan. East Saginaw, Michigan. East Tawas, Michigan. Forestville, Michigan. Marine city, Michigan. Marysville, Michigan. Oscoda, Michigan. Port Huron, Michigan. Port Sanilac, Michigan. Rogers, Michigan. St. Clair, Michigan.	St. Ignace, Michigan. Sand Beach, Michigan. Sebawaing, Michigan. LAKE MICHIGAN. Benton Harbor, Michigan. Charlevoix, Michigan. Chicago and South Chicago, Illinois. Cross village, Michigan. Depere, Wisconsin. Elk Rapids, Michigan. Escanaba, Michigan. Fayette, Michigan. Ford River, Michigan. Fruitport, Michigan.
LAKES HURON AND ST. CLAIR.		
Algonac, Michigan.		

PORTS OF ASSIGNMENT FOR STATISTICS OF TRAFFIC—Continued.

LAKE MICHIGAN—continued.

Gladstone, Michigan.
 Glen Arbor, Michigan.
 Grand Haven, Michigan.
 Green Bay, Wisconsin.
 Kenosha, Wisconsin.
 Kewaunee, Wisconsin.
 Leland, Michigan.
 Ludington, Michigan.
 Manistee, Michigan.
 Manistique, Michigan.
 Manitowoc, Wisconsin.
 Marinette, Wisconsin.
 Menominee, Michigan.
 Michigan city, Indiana.
 Milwaukee, Wisconsin.
 Montague, Michigan.
 Muskegon, Michigan.
 Oconto, Wisconsin.
 Pentwater, Michigan.
 Peshtigo Harbor, Wisconsin.
 Petoskey, Michigan.
 Port Washington, Wisconsin.
 Racine, Wisconsin.
 St. Joseph, Michigan.

LAKE MICHIGAN—continued.

Sheboygan, Wisconsin.
 South Haven, Michigan.
 Traverse, Michigan.
 Two Rivers, Michigan.
 Waukegan, Illinois.

LAKE ERIE.

Ashtabula, Ohio.
 Buffalo, New York.
 Cleveland, Ohio.
 Dunkirk, New York.
 Erie, Pennsylvania.
 Fairport, Ohio.
 Huron, Ohio.
 Kelleys Island, Ohio.
 Lorain, Ohio.
 Sandusky, Ohio.
 Toledo, Ohio.
 Tonawanda, New York.

LAKE ONTARIO.

Cape Vincent, New York.
 Charlotte, New York.
 Chaumont, New York.

LAKE ONTARIO—continued.

Dexter, New York.
 Henderson, New York.
 Millins Bay, New York.
 Oak Orchard, New York.
 Olcott, New York.
 Oswego, New York.
 Pultneyville, New York.
 Sacketts Harbor, New York.
 Sandy creek, New York.
 Sodus Point, New York.
 Wilson, New York.
 Youngstown, New York.
 Fairhaven, New York.

ST. LAWRENCE RIVER.

Alexandria Bay, New York.
 Chippewa bay, New York.
 Clayton, New York.
 Massena, New York.
 Grindstone island, New York.
 Morristown, New York.
 Ogdensburg, New York.
 Thousand Island Park, New York.
 Waddington, New York.

WHAT THE TABLES SHOW.

Following the consideration of the "Plan of the tables", the next step will be an inquiry as to what the tables show.

From the first of the whole series of the 33 tables it appears that on the Great Lakes and St. Lawrence river in the year ending December 31, 1889, the floating equipment numbered 2,737 craft, having a tonnage of 920,294 and an estimated commercial value of \$48,580,174. The components of this fleet were 1,467 steamers, with a tonnage of 595,813 and a value of \$40,868,824; 962 sailing vessels, with a tonnage of 185,081 and a value of \$4,238,850, and 308 unriggered craft, with a tonnage of 139,400 and a value of \$3,472,500. The various vessels that make up the preceding totals are entered for the ports which were given in the list on page 9 entitled "Ports of assignment for statistics of equipment", together with totals for the lakes on which these ports are found. These totals show that on Lake Superior there were at the close of 1889 167 vessels of all kinds, with a tonnage of 39,653 and a value of \$2,763,500; that the fleets on lakes Huron and St. Clair numbered 726, with a tonnage of 262,833 and a value of \$13,107,650; that the Lake Michigan fleet amounted to 1,003 craft, with a tonnage of 196,216 and a value of \$9,114,400; that the floating equipment on Lake Erie numbered 667, with a tonnage of 392,903 and a value of \$22,163,824; that on Lake Ontario there were 131 vessels, with a tonnage of 15,859 and a value of \$676,300; while on St. Lawrence river there were owned 43 vessels, with a tonnage of 12,830 and a value of \$754,500.

Table 2 presents the totals of the preceding table under the various heads of side-wheel passenger, propellers carrying both passengers and freight, propellers carrying freight only, tugs, schooners, and lake barges, together with their respective number, tonnage, and value. These details are given for the same 98 ports that were quoted in the preceding table. One of the most interesting facts shown by this table is that nearly two-thirds the vessels on the Great Lakes are assigned to 7 of these ports, namely, Chicago, Port Huron, Detroit, Milwaukee, Grand Haven, Cleveland, and Buffalo.

Some idea of the size of these port fleets may be gathered from the following summary, which shows the number and tonnage of certain classes of vessels which are assigned to them:

TABLE A.—SUMMARY SHOWING THE NUMBER AND TONNAGE OF CLASSIFIED VESSELS FOR THE SEVEN LEADING PORTS, TO WHICH HAVE BEEN ASSIGNED THE STATISTICS OF EQUIPMENT ON THE GREAT LAKES FOR 1889.

CITIES.	Total.		Propellers carry- ing both passen- gers and freight.		Propellers carry- ing freight only.		Schooners.		Barges.		All other classes.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Grand total	2,737	920,294	303	143,907	433	388,978	917	184,029	301	138,404	783	64,976
Total of the 7 ports	1,814	638,599	167	101,193	349	310,316	622	120,302	129	58,514	547	48,274
Chicago	339	71,260	34	13,181	28	10,960	155	35,859	18	6,255	104	5,005
Port Huron	293	61,482	11	1,887	73	40,840	100	6,302	21	6,797	88	5,656
Detroit	275	129,768	17	8,565	56	56,964	83	19,074	44	21,387	75	23,748
Milwaukee	259	61,694	12	3,282	53	39,172	129	13,034	6	2,246	59	3,960
Grand Haven	225	22,308	31	5,750	23	6,305	74	4,784	1	618	96	4,851
Cleveland	219	163,227	19	33,986	66	83,979	64	30,873	19	12,302	51	2,087
Buffalo	204	128,860	43	34,512	50	72,066	17	10,376	20	8,909	74	2,967
Total other ports	923	281,695	136	42,714	84	78,662	295	63,727	172	79,890	236	16,702

A SERIES OF PERCENTAGES.

In Table 3 the 2,737 craft which constituted the total fleet of the Great Lakes and St. Lawrence river are subjected to a series of percentage calculations, one of which pertains to tonnage and the other to valuation, from which may be learned what proportion the tonnage or the value of any particular class of vessels bore to the total tonnage or total value of all vessels on the particular lake named, and what proportion the tonnage or the value of any particular class of vessels bore to the total tonnage of that class of vessels on all these waters. For example, it appears that the gross tonnage of steam propellers carrying freight only on Lake Superior was 13,517 tons, or 34.09 per cent of the gross tonnage on that lake. It also appears that the tonnage of steam propellers carrying freight only constituted but 3.47 per cent of the total tonnage of such vessels. Turning next to the subject of valuation, it is seen that the total value of steam propellers on Lake Superior carrying freight only was \$898,500, which was 32.51 per cent of the total value of all vessels on Lake Superior, or 3.83 per cent of the total value of this class of vessels on all the lakes. Similar percentages are given for each lake and for each of the 17 classes of vessels, side-wheel passenger, propellers carrying both passengers and freight, propellers carrying freight only, tugs, ferries, pleasure yachts, pile drivers, sand dredges, sand boats, fire boats, steam lighters, unclassified vessels, schooners, lake barges, scows, sloops, and yawls.

In Table 4 each of the 17 classes is considered separately, the details of number, gross and net tonnage, estimated carrying capacity, commercial value, and value per gross ton being entered to the credit of each class from each lake. That is, for example, it is shown that on all the lakes there were 62 side-wheel passenger steamers, of which number 23 were employed on lakes Huron, and St. Clair, 22 on Lake Michigan, 10 on Lake Erie, 4 on Lake Ontario, and 3 on the St. Lawrence river; that the gross tonnage of these 62 side-wheel passenger steamers found on all the lakes was 27,259, of which the Huron and St. Clair proportion was 17,729 tons, the Michigan proportion 5,879 tons, the Erie proportion 2,221 tons, the Ontario proportion 553 tons, and the St. Lawrence river proportion 877 tons. Similar entries for all the lakes are made for the other items and the other classes which have been mentioned. Material will be found also in this table for a calculation showing the average tonnage, average commercial value, and average commercial value per ton of all the 17 classes of craft mentioned; and in the accompanying summary these averages will be found worked out for the 5 principal classes of vessels:

TABLE B.—SUMMARY SHOWING THE AVERAGE TONNAGE AND AVERAGE COMMERCIAL VALUE PER CRAFT AND PER TON OF THE 5 PRINCIPAL CLASSES OF VESSELS OPERATING ON THE GREAT LAKES AND ST. LAWRENCE RIVER IN 1889.

CLASSES OF CRAFT.	Average tonnage.	Average commercial value.	Average commercial value per ton.
Propellers carrying both passengers and freight.	475	\$36,208	\$76.24
Propellers carrying freight only	898	54,131	60.26
Tugs	50	5,228	104.55
Schooners	201	4,599	22.88
Lake barges	460	11,507	25.02

STATISTICS OF CONSTRUCTION.

Tables 5 and 6 present the same statistics but in two methods. They correspond, in fact, in the plan of their presentation, with the two preceding tables. The first takes up each lake as a group and for each of the ports belonging to that lake enters up the number, tonnage, value, average value per ton, and average tonnage of each fleet, classed by material of construction. That is, the entries for the port of Duluth, which is on Lake Superior, are that the fleet of that port included 3 vessels of steel, 2 of iron, 33 of wood, and 1 of composite material; that the tonnage of Duluth's 3 steel vessels was 2,684, that their value was \$175,000, that their average value per ton was \$65, and that their average tonnage per craft was 895; that the tonnage of Duluth's 2 iron vessels was 98 tons, their value \$20,000, their average value per ton \$204, and their average tonnage 49, and so on all through the list. Without taking up the details of the ports, there is gathered from Table 5 that Marquette's fleet included 4 steel vessels, which were valued at \$900,000, and had an average tonnage of 2,476; that Detroit's fleet included 258 wooden vessels, whose average tonnage was but 408, but whose aggregate value was \$4,936,800; that Chicago's wooden fleet numbered 335 vessels, valued at \$2,723,350, while Milwaukee's wooden fleet numbered only 256, but was valued at \$3,123,000; that Buffalo's fleet included 14 steel vessels, which had the high average tonnage of 2,132 per vessel, and an aggregate value of \$2,950,000, and that Cleveland's wooden fleet was even more valuable than Milwaukee's, the 208 vessels of that material accredited to the principal port on Lake Erie being valued at \$7,035,800.

In Table 5 the facts connected with material of construction were assigned chiefly to localities, while in Table 6 the details are assigned chiefly to the material of construction. That is, in Table 5 the headings were the lakes, while in Table 6 the headings are the materials. One sees, for instance, that on all the lakes there were 40 vessels of steel, which had a tonnage of 75,488, a value of \$7,349,000, an average value per ton of \$97, and an average tonnage of 1,887; that the iron fleet numbered 45 vessels, with a tonnage of 35,922, a value of \$3,225,224, and an average value per ton of \$90, and an average tonnage of 798; that the composite numbered 11, having a tonnage of 14,756, a value of \$1,228,000, an average value per ton of \$83, and an average tonnage of 1,341 per vessel; and that the lake wooden fleet was 2,641 vessels, at an aggregate tonnage of 794,128, an aggregate value of \$36,777,950, an average value per ton of \$46, and an average tonnage per vessel of 301. The same figures of aggregates and averages are given for each port, and there is the material for many valuable calculations which those interested in lake statistics will doubtless find it useful to work out.

FREIGHT TRAFFIC.

The statistics of freight traffic will be found presented in 12 tables, numbered from 7 to 18, inclusive. In all of these, with the exception of the last 3, the amounts of freight moved are given respectively as those of "Receipts", "Shipments", and "Total movement". Trade between American and Canadian ports is included in these statements, but the coastwise trade between Canadian ports is of course excluded. The division of the commodities into the 4 groups entitled "Products of agriculture", "Products of mines and quarries", "Other products", and "Manufactures, miscellaneous merchandise, and other commodities", set down in Table 7, has been made, because under these groups the principal articles of the lake commerce can be properly placed, and because this classification conforms in a general way to that adopted for all transportation statistics, thus providing for an easy comparison between lake traffic and the traffic of other sections of the country. It may be added here that the sources from which these statistics of traffic have been obtained are, first, reports from the customs offices of receipts and shipments; second, reports from leading shippers at ports having no customs offices; and third, reports from the important transportation lines operating on the Great Lakes and covering that portion of the traffic not included in port manifests. The reports of the boards of trade in the important cities have also been made use of to check and correct the information thus obtained, and it is believed that the figures presented are trustworthy and accurate.

LOCALIZATIONS OF TRADE.

In Table 7 the localization is made according to the lakes, and, in addition to the division of freight into the groups of locality and those of commodity, which have already been referred to, it contains a number of interesting percentages. These include not only the per cent of total traffic and the per cent of total commodity contributed by each lake to that traffic, but there also is a summary given in which the same percentages are applied to the excess of total shipments over total receipts, and excess of total receipts over total shipments.

A few words are necessary to explain these percentage columns. The first inserted alike under "Receipts", "Shipments", and "Total movement", shows what proportion the traffic of any commodity named bears to the total freight movement on the body of water for which the statistics are compiled. For example, the shipments of iron ore on Lake Superior were 4,141,057 tons, or 76.20 per cent of the total shipments of all commodities on that lake. These figures, therefore, indicate the relative importance of the various commodities in the commerce of the waters named. The percentage columns of the summary giving the total traffic show what proportion the traffic in any commodity named on a given lake bears to the total traffic in the same commodity on all the lakes.

For example again, Table 7 shows the total shipments of iron ore to have been 7,677,107 tons, while the shipments of that commodity from Lake Superior ports were, as has been seen, 4,141,057 tons, or 53.94 per cent of the total shipments of all iron ore on the Great Lakes and St. Lawrence river.

The most interesting point in connection with this summary of Table 7 is that part of it in which is given a balance sheet of receipts and shipments. From this it appears that the total receipts exceeded the total shipments by 669,158 tons, or 2.58 per cent of the aggregate freight traffic of all the lakes.

RECEIPTS AND SHIPMENTS.

It may be stated here that the only commodities of which the receipts and shipments nearly balanced are iron ore, flour, shingles, and pig iron. Table 7 does not separate the figures respecting these commodities except for iron ore, but in the commodity tables 10, 11, 12, and 13, such a separation has been effected for a number of commodities, and from the data there given many interesting balances may be struck.

For most of the other commodities the difference between receipts and shipments is quite marked. Coal, for example, shows an excess of shipments over receipts of 943,328 tons, or 15.45 per cent. This is in large measure explained by the fact that 562,834 tons of coal were exported from American ports on Lake Ontario to Canada, and that 25,931 tons are reported to have passed through the Welland canal. This leaves 354,563 tons to be accounted for. In the case of a commodity like coal, which is so universally used, it is fair to say that this excess was shipped to Canadian ports west of the Welland canal and to small ports within the United States, of which there is no record.

The shipments of wheat exceeded receipts by 1,666,267 bushels, or 49,988 tons. This is accounted for by the export of wheat to Canada, which passed through the Welland canal and St. Lawrence river to Montreal.

The shipments of corn exceeded the receipts by 12,346,893 bushels, or 345,713 tons. This shows an excess of shipments over receipts of 17.92 per cent. On investigation, however, it was found that 7,376,786 bushels of corn were exported to Canada via the Welland canal, and 3,758,427 bushels were shipped to Sarnia and Georgian bay for transshipment in bond through Canada to points in the United States.

The summary of Table 7 also shows that the shipments of "Other grains" exceeded receipts by 25,720 tons. This was principally due to the excess of shipments of oats over receipts, amounting to 7,890,593 bushels. Of this amount it was learned that 4,937,889 bushels were shipped to Sarnia and Georgian bay ports for transportation through Canada, and the remainder, it is believed, consisted of direct exports to Canada and of shipments to small ports on the Great Lakes, where no customs offices were located and no records of receipts were kept.

SAMPLE MOVEMENTS.

The discrepancy observed between the receipts and shipments of "All other farm products", 42,852 tons, was due to the fact that the commodities included under this head were shipped from small ports, of which they formed a considerable portion of the total traffic, and were given separately in the reports made, whereas they were received at large ports and were reported under the head of "Miscellaneous".

Lumber shows an excess of receipts over shipments of 676,244,000 feet, or 1,508,859 tons, making 22 per cent of total shipments. This was partly due to the heavy importation of Canadian lumber and partly to the fact that lumber was shipped in considerable quantities from a large number of isolated mills located at remote points on the more western lakes, where no record of shipments was kept or could be obtained.

No satisfactory explanation can be given of the fact that the receipts of salt exceeded shipments by 43,676 tons. It should be stated, however, that much confusion arose in the estimates of this commodity from the fact that it was shipped both in sacks and barrels, and that the custom house authorities of various ports failed to follow the same rule in converting it into tons.

The excess of receipts of stone over shipments, which amounts to 74,801 tons, is due to the fact referred to in the case of lumber, that is to say, the sources from which stone was obtained did not permit a correct statement of shipments.

RELATIVE IMPORTANCE OF TRADING POINTS.

Another form of localization is adopted in Table 8, entitled "Freight movement in general, by ports". Here the side lines are 31 selected ports, instead of the 4 comprehensive groups of commodities as they were in Table 7, while each commodity is made the title of a separate table. These 31 ports, it should be stated, have been selected because they had a total freight traffic of 250,000 tons or over. The percentages in Table 8 are equally interesting with those of Table 7.

The first column of percentages, given alike under "Receipts", "Shipments", and "Total movement", shows what proportion of traffic in the commodity in question was done by the port named. For example, the total shipments of wheat were 969,150 tons, of which Chicago shipped 312,203 tons, or 32.21 per cent of the total wheat traffic reported. The second column of percentages is designed to show what proportion of the total traffic of any port was due to the receipts and shipments of any commodity named. For example, the total shipments from Chicago amounted to 2,914,065 tons, 10.71 per cent of which, or 312,203 tons, was, as has been seen,

shipments of wheat. By referring, therefore, to the columns of percentages three important facts may be learned: first, the relative importance of any particular port in the traffic of any commodity named; second, the relative importance of any commodity in the traffic of any port named; third (by referring to the summary), the relative importance of any port in the total traffic of the Great Lakes and St. Lawrence river.

An example of the first calculation of percentages is found in that part of the table which refers to the movement of iron ore. Here it is seen that, so far as shipments went, Escanaba exported 3,364,067 tons of that product, or 43.82 per cent of the total iron ore exporting traffic on these waters; but as this port's traffic in iron ore was confined to its exportation, its percentage of the total iron ore movement on the lakes was reduced to 21.98 per cent. The same port may be retained as an example of the second class of percentages, in which it is seen that the 3,364,067 tons of iron ore which were shipped from Escanaba constituted 98.06 per cent of the entire traffic of the port. As to the third class of percentages, Escanaba being still kept as an example, the summary will show that its relative importance in the total shipment traffic was 13.58 per cent of the total shipment.

TRAFFIC IMPORTANCE.

A still further step in the localization of the freight movement is made in the résumé, Table 9, which gives the statistics of receipts, shipments, and total movement of freight at the 107 lake and river traffic points which are embraced in the list on pages 9 and 10, entitled "Ports of assignment for statistics of traffic", and from which returns have been received. No attempt has been made to work out the percentages of all these 107 ports, both because the calculations of percentage have been made with sufficient detail in the other tables and because these additional calculations would require a far greater labor than would be commensurate with the results.

Neither are these traffic points arranged according to the lakes on which they are situated, but in an unbroken list running according to their traffic importance. Chicago, it will be seen, easily heads the list, its freight receipts having been 5,069,973 tons, and its shipments 2,914,065 tons, a total of 7,984,038 tons. Buffalo, which is next on the list, had a total freight movement of 6,730,137 tons, made up of 4,046,144 tons of receipts and 2,683,993 tons of shipments. The total traffic of Escanaba, which comes third, was 3,626,390 tons, and it is curiously made up, for while its receipts were only 195,558 tons, its shipments amounted to no less than 3,430,832 tons, which made it the greatest shipping port on the lakes. The traffic of Cleveland, which occupies the fourth place, is made up on exactly reverse grounds to that of Escanaba, for in Cleveland's case out of a total of 3,621,570 tons the shipments were but 883,862 tons, while the receipts were 2,737,708 tons. In some of the ports it will be noticed there is but 1 entry. Tonawanda, for instance, which is thirteenth on the list, appears to have been a port of receipts only, as were also Dunkirk, Waukegan, Dexter, Pultneyville, Oak Orchard, Sandy Creek, Millens Bay, Thousand Islands Park, and Youngstown, while Two Harbors, Oscoda, Peshtigo Harbor, Baraga, Pequaming, Ontonagon, Marysville, Leland, and Glen Arbor were ports of shipment only. It would be but a reproduction of the table to quote extensively from its entries, and it need only be mentioned here that the traffic figures diminish almost ton by ton until the last entry is reached, that being Youngstown, with a total traffic for the year of 75 tons.

DETAILS OF COMMODITIES.

In Table 9 the ports, as has been stated, were arranged in the order of their importance as determined by the total amount of traffic, but in the 4 tables, 10, 11, 12 and 13, in which the work of particularization is still further carried out, these 107 ports are allotted to their respective lakes, while to each port, with totals for the lakes, there are given in detail the receipts, shipments, and total movement of all commodities. In the extended division of commodities, instead of the 13 headings which were given in Table 7 and Table 8, these commodity tables give no less than 26 headings, or just double that number. Apart from the usefulness of the extensive detailed work shown in Tables 10, 11, 12 and 13, the chief point of interest in the exhibit there made, as indeed in all the tables wherein commodities are shown, is the fact that the 3 articles of coal, iron ore, and lumber comprise 75.73 per cent of the total freight movement on the lakes. If to these commodities be added corn, 82.59 per cent of the total freight tonnage is accounted for, and if to the commodities above named there be added wheat and mill products, there would only remain 10.03 per cent of the total tonnage unaccounted for. It is, then, the simplicity of the lake commerce, so far as the leading commodities are concerned, which is its chief characteristic.

The best illustration of the fact is found in Table 13, entitled "Total freight movement, by extended list of commodities". Here it is shown that the total movement of coal on all the lakes amounted to 11,268,270 tons; that the total movement of iron ore amounted to 15,303,180 tons; that the lumber movement was that of 12,205,655 tons; that the corn movement amounted to 3,513,515 tons; that the wheat movement reached 1,888,312 tons, and that of mill products amounted to 1,886,189 tons. These items represent the movement of 46,065,121 tons out of a total movement of 51,203,106 tons, leaving but a balance of 5,137,985 tons, and when from this amount is taken the 1,623,115 tons of unclassified merchandise there will remain but 3,514,870 tons to be divided among the other commodities. Between the 1,886,189 tons of mill products and the next commodity in order of importance there is indeed a great disparity of movement. The closest item is the composite one of "Other grains", of which the movement was 980,514 tons, after which the record drops to the half-million-ton standard, the commodity of salt having been

transported to the extent of 549,350 tons and that of stone to 547,229 tons. The total movement of the other commodities ran as follows:

	TONS.
Other iron manufactures	320,303
Iron, pig and bloom.....	316,224
Cement, brick, and lime.....	181,462
Other products of agriculture.....	132,517
Animal products.....	123,495
Sugar.....	103,317
Other ore than iron	71,562
Petroleum	52,582
Other manufactures	28,735
Fruit	26,984
Products of mines and quarries other than coal, stone, and salt.....	23,587
Ice	18,912
Hay	18,077
Liquors.....	14,236
Potatoes	3,698
Live stock	2,086

COMMODITY MOVEMENTS.

Looking at the movement of the 6 principal items, iron ore, lumber, coal, corn, wheat, and mill products, with more regard to the limitations of traffic, it is seen in Table 13 that the largest movement in iron ore was that of receipts by the ports on Lake Erie, the figures being 6,490,518 tons out of a total for all the lakes of 15,303,180 tons, and tracing down these ports on Lake Erie in Table 10, one finds that the three great ports at which receipts of iron ore were had were Ashtabula, at which was received 2,199,109 tons; Cleveland, at which the receipts were 1,951,564 tons, and Fairport, which received 928,616 tons. Table 13 also informs us that lakes Superior and Michigan were the lakes from which the great bulk of the iron ore was shipped, the figures being: Lake Superior, 4,141,037 tons, and Lake Michigan 3,446,947 tons, the addition of which 2 amounts gives 7,588,004 tons out of a total shipment movement of 7,677,107 tons. The detailed information of Table 11 explains this matter thoroughly and shows that on Lake Superior there were 3 ports from which all its shipments of iron ore were made, these being Ashland, 1,663,021 tons; Marquette, 1,541,495 tons, and Two Harbors, 936,541 tons; while on Lake Michigan there were but 2 ports from which iron ore was shipped, these being Escanaba, to which reference has already been made, with 3,364,067 tons, and Gladstone, 82,880 tons.

The total movement of coal on all the lakes, it will be remembered, was 11,268,270 tons, made up of 5,162,471 tons receipts and 6,105,799 tons shipments. The only 2 lakes, as Table 13 shows, of which the receipts were of any consequence were Lake Michigan, where the receipts were 2,865,021 tons, and Lake Superior, where the receipts were 1,754,675 tons; while nearly the entire amount of coal shipments were made on Lake Erie, the figures being 5,196,182 tons; the next and only lake of importance as a shipping lake being Lake Ontario, on which the coal shipments were 764,355 tons. Turning back to Table 10 it will be seen that the records of the individual port receipts of coal clearly indicate the importance and extent of the industries of the respective places. The largest receipts for coal, for example, on Lake Michigan were naturally at Chicago, the figures being 1,329,364 tons, and then Milwaukee, with 907,743 tons; while on Lake Superior the great receiving points for coal were Superior, 720,000 tons, and Duluth, 485,000 tons. When it comes to shipments, however, the story is quite a different one, the main port on Lake Erie being Buffalo, the shipping point of the Pennsylvania anthracite, the figures being 2,156,670 tons. Cleveland and Toledo are also large shipping points, the shipments from the first-named port being 825,030 tons, and from the second, 650,000 tons. On Lake Ontario the great coal-shipping point was Charlotte, from which 350,000 tons were sent. In a similar way the record of all the commodities could be worked out and no better history could be furnished of the whole traffic than would result from such a study, but enough space has already been taken up in indicating how this analysis of the tables may be made and of the lessons which would result from such an analysis.

A DIVERSITY OF ITEMS.

It was stated on page 14 that "the simplicity of the lake commerce, so far as the leading commodities are concerned, is its chief characteristic", but it must not be inferred, however, that because of the preponderance of three or four commodities the commerce of the lakes is not a diversified one. The contrary is, indeed, the case, as may be seen by the following lengthy list of commodities which are included in the 5 divisions of "Products of agriculture", "Products of mines and quarries", "Other products", "Manufactures", and "Unclassified":

Products of agriculture:

Wheat includes all wheat.

Corn includes green corn.

Other grains include barley, buckwheat, oats, rye, and rice.

Mill products include bran, corn meal, flour, ground feed, mill stuffs, malt, middlings, oatmeal, and oil cake.

Fruit includes all kinds of fruit.

Other farm products include onions, straw, butter, cheese, eggs, peas, broom corn, vegetables, cider, seeds, cotton, and tobacco.

Products of mines and quarries:

Other ore includes copper ore and spelter.

Stone includes limestone, sandstone, paving stone, grindstone, building stone, marble, and sand.

Other mine products, not specified, include bullion, mica, plaster, and sulphur.

Other products:

Animal products include beef, cured meats, hides and skins, pork, leather, lard, tallow, wool, and poultry.

Live stock includes hogs, horses, cattle, and sheep.

Lumber, all kinds, includes car sills, Georgia pine, hoops, hoop poles, heading, matchwood, moldings, piles, posts, pickets, slabs, staves, bolts, ties, wood, lath, and shingles.

Manufactures:

Petroleum includes other oils.

Other iron manufactures include castings, bolts, railroad iron, nails, stoves, steel, spikes, machinery, bar and sheet metal, and rails.

Liquors include spirituous and malt liquors of all kinds and alcohol.

Other manufactures, not specified, include acid, ammonia, alum, bottles, bags, baskets, crockery, fertilizer, furniture, earthenware, lead, wagons, mantels, paints, pianos and organs, paper, trunks, pipes, jars, and twine binders.

Unclassified:

Merchandise and other commodities include ashes, empty barrels, bark, empty cases, household goods, fish poles, scrap iron, junk, empty kegs, mineral water, oakum, pulp, rags, sulphite, fiber, canned goods, coffee, candles, chestnuts, drugs, fish, groceries, glass, glucose, sirup, explosives, mill merchandise, rope, starch, soap, toys, tea, varnish, vinegar, sawdust, and sundries.

UNCLASSIFIED COMMODITIES.

The 25,936,132 tons of received freight and the 25,266,974 tons of shipped freight, which have been given in traffic tables 7 to 13, inclusive, do not really include all the freight for which returns even have been made, but only that amount which could be accurately reduced to the uniform unit of a 2,000-pound ton. A very large amount of freight was reported on which no such accurate reduction could be made, these returns being set down in Table 14. Among the much diversified commodities which are given in this table are household goods, window sashes, pianos, empty cases, thrashing machines, and home and farm utensils and machinery of many descriptions. The principal item, however, was that of merchandise waybilled as "packages", of which packages there were no fewer than 8,937,402.

These unclassified commodities represented so large a freight tonnage that an estimate of their freight in tons has been made. That attempt is set down in Table 15, wherein is shown the unit of measurement or description, the estimated weight in pounds per unit, and the estimated result in tons of all these much diversified goods, the result being an addition of 460,777.23 tons to the figures which stand as the totals of the general traffic tables.

CARGO TONNAGE.

While in all these tables the receipts, shipments, and total movement of freight have been quoted as representing the traffic on the Great Lakes and St. Lawrence river, it must be observed that it is a problem in accurate statistics whether the aggregate of receipts and shipments does not show a larger movement than the actual returns of cargo tonnage would do. In Table 16 the principle has been followed that the volume of traffic would be more clearly measured, not by this aggregate of receipts and shipments for all ports, but rather by taking in the case of each commodity either receipts or shipments, whichever happened to be the larger, and using this single amount to represent the cargo tonnage of that commodity. The totals of this table are drawn from Table 8.

PASSENGER RETURNS.

The last of the traffic tables, Table 17, furnishes the figures showing the passenger movement on these waters. From the returns there shown it appears that 775,871 persons traveled on regular passenger or regular passenger and freight boats; that 836,648 excursion passengers were reported on, and that there were 623,474 ferry

passengers, making a total of 2,235,993 passengers. A consideration of these totals is postponed until the subject of comparative statistics is taken up. It will be enough to say here that nearly one-half of the excursion passengers is credited to Lake Erie, on which lake there seems to have been moved a total of 369,924 excursionists, and that Toledo was the great excursion point, no fewer than 257,046 being the number set down. The lake on which the greatest regular passenger business is reported to have been conducted is Lake Huron, which gives 315,120 out of a total of 775,871. The figures of passenger traffic are interesting so far as they go, but it must be confessed that the returns were not made with that scrupulous care which characterized the schedule reports of traffic and equipment.

FREIGHT VALUES.

Information regarding the value of the freight moved in any locality or on any particular water system has been so often asked for since commencing the preparation of these statistics that a calculation has been effected, in the case of the lake traffic, to secure an estimate of such valuation. This has been moderately practicable, as will be seen in Table 18, because of the record of estimated value kept at the offices of the St. Marys Falls canal, as will be hereafter shown in Table N inserted in the body of the present text. These estimates, which were prepared with much care by General O. M. Poe, United States Army Corps of Engineers, cover most of the principal commodities, and by applying them to the commodity tables of the lake traffic it has been found that the 27,394,767 tons constituting the total of the cargo tonnage shown in Table 16 had a value of \$359,482,437, while the addition of the 248,820 tons of unweighed freight, which has been estimated as the proper "cargo tonnage" of the 460,777 tons given in Table 15, will, at an estimate of \$60 per ton, raise the total value to \$374,411,637. The average estimated value per ton of all commodities, it will be seen, was \$13.12, while the range in the estimated values of commodities ran from \$3.05, for iron ore, to \$155.38 for "other products of mines and quarries". The next highest estimated value of any commodity is that of \$100 per ton, for "animal products". The valuation of some one or two other commodities, it will be observed, runs up into very high figures. The lead is taken by lumber, the 6,857,257 tons which were moved during 1889 being set down as worth \$70,629,747. Next come the mill products, valued at \$49,603,300, and then the wheat, \$31,662,131. The coal moved is valued at \$21,370,297 and the iron ore at \$23,415,176. The claim is not made that these estimates of values are unfailingly exact, but it is believed that they come comparatively close to the actual facts.

EARNINGS AND EXPENSES.

In Table 19 the figures are given which show how the business of transportation by water paid during 1889 for the 1,841 reporting craft. These figures are furnished under the headings of gross earnings, expenses, and net earnings, and all are given for the steam, the sailing, and the unriggered fleets allotted to their ports of registration, with totalized earnings for the lakes, and a summary in which a balance sheet is struck for all classes of craft; while in a supplementary table an estimate is made of the earnings and expenses of the 896 craft not reporting these matters. The summary's figures indicate that the gross earnings of the reporting fleet amounted to \$24,369,895, the expenses to \$19,443,241, leaving the net earnings at \$4,926,654. The largest figures out of this total are for Lake Erie, the gross earnings of its reporting fleet standing at \$9,649,090, with expenses of \$7,621,541, and net earnings of \$2,027,549. The next largest account is that of Lake Huron's fleet, which earned \$6,955,133, which paid out \$5,349,465 for expenses, and made as net earnings \$1,605,668. The third lake fleet in the order of its earnings and expense account was that of Lake Michigan, where the gross earnings were \$5,826,148, the expenses \$4,843,159, and the net earnings \$982,989. So far as ports are concerned, the largest gross earnings were those made by Cleveland's fleet, the figures being \$4,344,697 and the expenses \$3,441,929, leaving the net earnings at \$902,768. The next port in the order of its fleet operations so far as reported was Detroit, the amount being \$3,792,600, with \$2,812,931 for expenses and \$979,669 as net earnings. The third port of importance in this regard was Port Huron, its fleet returns giving \$3,162,533 of gross earnings, \$2,536,534 of expenses, and \$625,999 of net earnings. The gross earnings of Buffalo's fleet were \$2,785,853; those of Milwaukee were \$2,398,306; those of Chicago were \$2,111,312; those of Grand Haven were \$1,316,530, and those of Marquette were \$1,105,405; the earnings of each of the other places being below \$1,000,000.

Out of the totals of the combined fleets the earnings of all the reporting lake steamers amounted to \$17,808,329, the expenses to \$13,861,485, and the net earnings to \$3,946,844. Lake Erie maintains its importance in the returns of the steamers' accounts just as it did in the returns of the entire fleet, the steamers' gross earnings being \$7,461,533, their expenses \$5,732,426, and their net earnings \$1,729,137. Cleveland also retains its relative port importance, the gross earnings of its steamers being \$3,215,855, the expenses \$2,449,910, leaving the net earnings at \$765,945. These net earnings, however, were not so large as those of Detroit's steamers, the sum in that case being \$815,357 out of a total gross earnings of \$2,945,129. Next to Detroit came Buffalo, the gross earnings of its steamers being \$2,368,184 and their expenses \$1,834,458, leaving the net earnings at \$533,726.

The gross earnings of the entire reporting sailing fleet for all the lakes were \$6,480,424, the expenses \$5,513,536, and the net earnings \$966,888. The same lakes and ports that have been enumerated as controlling the most important financial figures in the reported operations of their entire sailing and steam fleets retained their leading position in the same details of the sailing vessels, and it will be scarcely necessary to quote any figures in evidence.

The earnings of the unrigged amounted to \$81,142, the expenses to \$68,220, and the net earnings to \$12,922. Only 3 ports, it will be observed, made any return for the unrigged, these being Marquette, Buffalo, and Ogdensburg. The unrigged account is in fact not altogether satisfactory, the two great difficulties in securing reports being that the most of the unrigged were mainly employed on the canals opening onto the lakes and their operations have been, whenever possible, covered in the report on canals; and, in the next place, the expense account of the unrigged was in many cases included in the accounts of the steamers supplying the motive power.

The supplementary table for the 896 craft not reporting earnings and expenses shows the estimate of gross earnings to be \$11,093,957, that of expenses \$8,448,811, leaving the net earnings at \$2,645,146, and these figures added to those of the craft actually reporting would raise the probable gross earnings of the whole operating fleet of the Great Lakes to \$35,463,852, the expenses to \$27,892,052 and the net earnings to \$7,571,800.

EXPENSE DETAILS.

In Table 20 the total amount of reported expenses, \$19,443,241, is reduced to the principal items making it up. These items are port charges, wages, provisions, current repairs, fuel (for the steamers), commissions, insurance, taxes, and office expenses, together with the two entries giving what other running and shore expenses may not have been included in the list of items just quoted. These items of expenses are distributed among the steam, sail, and unrigged craft of each port of registration, with totals for the lakes and a summarized presentation of the same items of expenses for all the fleets. Many interesting lessons are to be learned from a consideration of these analyses of expenses. By far the largest item was that of wages, the figures being \$5,676,802, of which amount \$4,235,980 were paid on board the steamers and \$1,422,957 on board the sailing vessels. Out of the total wages Cleveland paid \$652,146 to steamer hands and \$223,576 to the crews of sailing vessels, while Detroit shipowners paid out \$626,589 to the officers and crews of steamers and \$139,746 for wages on board sailing vessels. The wage account of the Buffalo steamers footed up to \$533,468, that of its sailing vessels reaching only \$70,424, while the steamer wages at Port Huron amounted to \$479,292 and the sailing vessel wages to \$230,201.

The next largest item of expense was that of fuel, the cost of which amounted to \$2,975,915. Current repairs cost \$1,681,694, \$1,158,494 being expended on steamers and \$522,557 on sailing vessels. Provisions cost \$1,322,925, the steamers' portion of that expense being \$990,678 and the sailing vessels' part being \$328,207; port charges for the fleets for all the lakes amounted to \$895,140, close to which stands the item of insurance, \$885,303. The commissions amounted to \$158,863, taxes to \$138,773, and the office expenses to \$235,085. There is material in Table 20 for many calculations which would be of especial interest to shippers, such, for example, as the relation of certain items of expense to certain classes of vessels in different localities, together with others which will suggest themselves to the practical reader.

The supplementary table for the 896 craft not reporting details of expenses gives a very interesting analysis in estimate of the \$8,448,811 which form the total estimated expenses of the nonreporting contingent of the lake fleet, and by adding these estimates to the figures actually given the probable totals in the items of port charges, wages, provisions, current repairs, fuel, commissions, insurance, taxes, and other running and shore expenses will be obtained.

EMPLOYÉS AND WAGES.

In much the same way that the grand total of expenses given in Table 19 was divided into a number of items in Table 20, so the grand total of wages which formed one of the leading items in Table 20 is analyzed in Tables 21 and 22, which treat of the monthly wages of all classes of employés. Of these employés the steamer list embraces captains, first and second mates, clerks, first and second engineers, wheelmen, lookouts, watchmen, cooks and assistant cooks, seamen, deck hands, firemen, stewards, waiters, boys, chambermaids, porters, and musicians; the sailing vessel list embraces captains, first and second mates, cooks, seamen, boys, and watchmen; and the unrigged craft list includes captains, mates, cooks, and seamen. The number of each class of employés for all fleets is given by ports, lakes, and in a comprehensive total. From this latter it is seen that on all the lakes the list of employés, their number, aggregate monthly payments, and the average monthly wages for the 1,841 reporting craft were as given in Table C, on the following page.

TABLE C.—STATEMENT SHOWING THE NUMBER OF ALL EMPLOYÉS CONSTITUTING THE ORDINARY CREWS OF 1,841 REPORTING VESSELS ON THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THEIR AGGREGATE AND AVERAGE MONTHLY WAGES.

EMPLOYÉS.	Number employed.	Aggregate of wages for one month.	Average monthly wages.
Total	15,761	\$769,047	\$48.79
Captains.....	1,837	175,799	95.70
First mates.....	1,214	74,471	61.34
Second mates.....	471	26,304	55.85
Clerks.....	117	7,751	66.25
First engineers.....	1,067	93,193	87.34
Second engineers.....	597	37,159	62.24
Whoelmen.....	1,040	37,452	36.01
Lookouts.....	565	19,078	33.77
Watchmen.....	505	16,633	32.94
Cooks.....	1,367	60,794	43.83
Assistant cooks.....	306	6,419	20.98
Seamen.....	2,444	93,255	38.16
Deck hands.....	2,278	53,992	23.70
Firemen.....	1,463	53,411	36.51
Stewards.....	75	4,457	59.43
Waiters.....	215	4,395	20.44
Boys.....	34	622	18.29
Chambermaids.....	49	1,097	22.39
Porters.....	89	2,245	25.22
Musicians.....	8	520	65.00

In explanation of the apparently high wages paid in the business of the lake traffic, which the preceding and succeeding tables show, attention should be called to the fact that the season of employment on the Great Lakes never includes the winter months, and, that, therefore, any computation of annual wages can only be based upon the 7 or 8, or, at the most, 9 months of open water. From summary Table C it is also seen that the number of persons making up the ordinary crews of the 1,841 reporting vessels was 15,761, of which number (see Table 22) 832 belonged to Lake Superior, 4,278 to Lake Huron, 4,503 to Lake Michigan, 5,430 to Lake Erie, 476 to Lake Ontario, and 242 to St. Lawrence river. The number of persons who received employment on these vessels during the year, however, was much larger, the total being 28,295, of which total 1,469 belonged to Lake Superior, 6,853 to Lake Huron, 8,474 to Lake Michigan, 10,298 to Lake Erie, 615 to Lake Ontario, and 586 to St. Lawrence river. The total monthly account of the wages paid to the officers and crews given in the foregoing statement stands at \$769,047, of which amount \$43,514 were paid to officers and crews on Lake Superior, \$195,894 to those on Lake Huron, \$233,630 to those on Lake Michigan, \$264,083 to those on Lake Erie, \$21,849 to those on Lake Ontario, and \$10,077 to those on the St. Lawrence river. The average rate of wages has also been worked out in all of these tables, and when they are calculated from the lake totals it is remarkable how little variation appears. The highest average rate of wages per month for the whole body of reported employés making up ordinary crew is \$52.30 for Lake Superior, while the lowest is \$41.64 on St. Lawrence river, between which come \$51.88 for Lake Michigan's average, \$48.63 as that of Lake Erie, \$45.90 as that of Lake Ontario's employés, and \$45.79 as that of the Lake Huron contingent, the average for the whole system of lakes being \$48.79, which is, as it will be observed, very close to that of Lake Erie's average.

STATISTICS OF TRANSPORTATION.

So far as the list of the steamer crews is concerned, with their numbers, class, and aggregate monthly wages, the figures are as follows:

TABLE D.—STATEMENT SHOWING THE NUMBER OF ALL EMPLOYEES CONSTITUTING THE ORDINARY CREWS OF REPORTING STEAMERS ON THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THEIR AGGREGATE AND AVERAGE MONTHLY WAGES.

EMPLOYEES.	Number employed.	Aggregate of wages for one month.	Average monthly wages.
Total	11, 159	\$554, 907	\$49. 73
Captains	1, 069	116, 678	109. 15
First mates	577	41, 289	71. 56
Second mates	339	19, 663	58. 00
Clerks	117	7, 751	66. 25
First engineers	1, 067	93, 193	87. 34
Second engineers	597	37, 159	62. 24
Wheelmen	1, 040	37, 452	36. 01
Lookouts	565	19, 078	33. 77
Watchmen	503	16, 583	32. 97
Cooks	720	37, 106	51. 54
Assistant cooks	306	6, 419	20. 98
Seamen	52	1, 870	35. 66
Deck hands	2, 278	53, 992	23. 70
Firemen	1, 463	53, 411	36. 51
Stewards	75	4, 457	59. 43
Waiters	215	4, 395	20. 44
Boys	30	549	18. 30
Chambermaids	49	1, 097	22. 39
Porters	89	2, 245	25. 22
Musicians	8	520	65. 00

Allotted to the lake and river steamer fleets, the monthly wage list for these steamers (with the average rate wages per month) stands as follows:

LAKES AND RIVER.	Total wages paid per month.	Average rate of wages per month.
Total	\$554, 907	\$49. 73
Lake Superior	36, 479	52. 79
Lake Huron	144, 608	48. 01
Lake Michigan	148, 397	52. 75
Lake Erie	204, 532	48. 72
Lake Ontario	12, 402	46. 60
St. Lawrence river	8, 489	47. 16

The crews of the sailing vessels, with their monthly wage account, are shown in the following list:

TABLE E.—STATEMENT SHOWING THE NUMBER OF ALL EMPLOYEES CONSTITUTING THE ORDINARY CREWS OF REPORTING SAILING VESSELS ON THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THE AGGREGATE AND AVERAGE MONTHLY WAGES.

EMPLOYEES.	Number employed.	Aggregate of wages for one month.	Average monthly wages.
Total	4, 541	\$212, 058	\$46. 70
Captains	757	58, 426	77. 18
First mates	632	32, 952	52. 14
Second mates	132	6, 641	50. 31
Cooks	660	23, 547	35. 68
Seamen	2, 354	90, 369	38. 79
Boys	4	73	18. 25
Watchmen	2	50	25. 00

Allotted to the lake and river sailing vessel fleets, the monthly wage list (with the average rate of wages per month) would be as follows:

LAKES AND RIVER.	Total wages paid per month.	Average rate of wages per month.
Total	\$212,058	\$46.70
Lake Superior	6,669	49.77
Lake Huron	51,286	40.51
Lake Michigan	85,233	50.43
Lake Erie	58,876	48.34
Lake Ontario	9,447	44.77
St. Lawrence river	547	24.86

The items of the wage account of the crews belonging to reporting unrigged craft may be summarized as follows:

EMPLOYÉS.	Number employed.	Aggregate of wages for one month.	Average monthly wages.
Total	61	\$2,082	\$34.13
Captains	11	695	63.18
Mates	5	230	46.00
Cooks	7	141	20.14
Seamen	38	1,016	26.74

The supplementary statement for the 896 craft not reporting crews and wages shows the estimated number of men on these vessels to be 6,965, to whom, on the basis of the rates reported on, there were paid \$317,138 as the aggregate of wages for 1 month. Accepting the sum of these 2 tables as the probable account of crews and wages for all the operating lake fleets, it would seem that the total number employed was 22,726, their aggregate wages for 1 month being \$1,086,185.

FUEL ACCOUNT.

An itemization has been made of the fuel account in Table 23, wherein are set down the accounts of coal and wood burned by the 1,072 reporting steamers during the operating year of 1889, together with the cost of the fuel. As was seen when considering Table 20, the cost of the fuel figured as an item of the expense account to the extent of \$2,975,915. The material costing this consisted of 1,118,677 tons of coal and 62,319 cords of wood. The greatest reported consumption of coal was on Lake Erie, where 497,268 tons were burned, costing \$1,333,833; on Lake Huron 324,209 tons were burned, costing \$745,130, and on Lake Michigan 205,591 tons of coal were burned. Wood was only reported as having been burned to any extent on Lake Michigan, where 60,843 cords were used; the other two localities reporting the consumption of wood for fuel being Lake Superior, with 1,100 cords, and St. Lawrence river, with 376 cords.

The supplementary report for the 395 steamers not reporting fuel gives an estimate of 412,320 tons of coal and 22,969 cords of wood burned, valued at \$1,096,536; which figures added to those actually reported give a total fuel account of 1,530,997 tons of coal and 85,288 cords of wood, the whole valued at \$4,072,451.

COMPARATIVE STATISTICS.

In considering the comparative statistics embraced in Tables 24 to 32, inclusive, it must be remembered that the figures are drawn from two different sources, according to the condition of the data. Thus the first 4 tables are made up from the information which was presented in the transportation volume of the Tenth Census compared with such totals drawn from the report of the present census as could be presented in exact juxtaposition. The only branch of transportation on the Great Lakes which the report of the Tenth Census touched upon was that conducted by steamers, so that the tabulation of comparative statistics based on the census figures was necessarily restricted to the operations of this class of craft, and to such entries of equipment, operations, and expenses as formed the subject of the inquiry by both the Tenth and Eleventh Censuses.

In this connection the following extract from the report on transportation by the Tenth Census may be pertinently quoted:

THE LAKES IN 1880.

On the northern lakes, embracing the steamboat interests of states and parts of states tributary to these waters, but excluding Lake Champlain, there were at the close of the census year 947 steamers of all classes, measuring 222,290.45 tons, valued at \$13,918,925, with \$16,978,108 of capital invested. They gave employment to 9,143 men, and there were paid for services \$3,293,964, making an average of \$360.27 per man, exclusive of shore help. The passenger movement, amounting to 1,356,010 persons carried, may be divided

into 926,250 regular and excursion passengers and 429,760 ferry passengers, not including the transfers of the Canada Southern Bridge Company at Stony Island, near Detroit, with one of their boats an American bottom. The freight movement reached 4,368,171 tons, exclusive of lumber carried, which approximated 318,889,000 feet. The lumber that was towed during some stage in its journey from the forest and mill to the manufactory would include a large share of the 4,497,211,000 feet cut on the upper and lower peninsula of Michigan, as well as a large portion of the lumber production of Wisconsin. * * * Employed in this line of traffic there were some 70 steamers, measuring 23,300.84 tons, and valued at \$1,302,500, engaged in carrying this production. In the grain trade the number of steamers approximated 67, measuring 80,669.12 tons, and valued at \$4,777,700, and in the ore trade there were some 38 steamers, measuring 36,145.93 tons and valued at \$1,750,500. * * *

The fuel consumed by the steamers on the northern lakes was reported at 488,610 tons of coal and 255,629 cords of wood, the latter consisting largely of slabs and poor grades of wood and refuse used in the towing steamers in the lumber regions of Michigan and Wisconsin. The coal consumed was largely of the bituminous variety, mined in southern and central Ohio. * * *

Of the 947 steamers owned on the northern lakes, 141 were passenger steamers, measuring 56,471.26 tons and averaging 400.50 tons each; 28 ferry steamers, measuring 3,624.26 tons and averaging 129.43 tons each; 202 freight steamers, measuring 139,154.16 tons and averaging 688.88 tons; 426 towing steamers, of 20,274.95 tons, with an average of 47.59 tons; and 150 yachts, measuring 2,765.82 tons and averaging 18.44 tons. In 1851 the average tonnage of steamers on the northern lakes was given at 437 tons. The increase in the number of tugs and yachts since that date has reduced their average to 235 tons at the present time. The maximum tonnage in 1880 was 2,082 tons, while the maximum of actual carrying capacity was about 2,400 tons.

LESSONS OF COMPARISON.

So far as Table 24 goes, it might form the basis of much interesting speculation, but all that it is necessary to indicate at present is the fact that in 1880 the lake fleet of steamers numbered 947, with a tonnage of 222,290 tons and an estimated commercial value of \$13,918,925, and that in 1889 the lake fleet of steamers numbered 1,467, had a tonnage of 595,013 tons, and was valued at \$40,868,824. The classification of the fleets for both years has been made by passenger and freight carrying boats, ferryboats, towing and harbor boats, and miscellaneous craft. In all of these classes, with the exception of the miscellaneous, it will be observed there has been a steady and well-defined increase, and the only reason that this is not marked in the miscellaneous class is because in the entry of 1880 there were included a number of steam canal boats that were omitted from that of 1890. It has been said that the increase in the 2 years of report is a steady and well-defined one, but it will be observed that there is an apparent lack of ratio between the number of the passenger and freight boats on the one hand and the increase of their tonnage and value on the other, for while the increase in the number of the steamers is at the rate of 132.65 per cent, the increase in the tonnage stands at 186.34 per cent, and that of value at 228.87 per cent. The explanation of the apparently undue increase in tonnage and value lies in the fact that the passenger and freight steamers which are being turned out from the lake shipyards are yearly becoming larger and more expensive, a subject concerning which much more is said under the head of "Comparative record of shipbuilding".

EARNINGS AND WAGES.

Only the gross earnings are given in Table 25, because in the investigation of 1880 only these were asked for, and it was not possible to make up a balance sheet owing to the absence of any figures of expenses, and only the total for all the lakes is published because of the fact that in 1880 the returns were made by states, while in 1889 they were made by lakes. This unfortunately does away with the possibility of a comparison by localities, and all that can be shown or said is that in 1880 the gross earnings on all the reporting craft of the Great Lakes amounted to \$12,136,228, while in 1889 the sum had risen to \$17,808,329, a gross increase of \$5,672,101 and an average annual increase of more than \$630,000. The amount paid out in wages on reporting vessels in the 2 years is given in Table 25, because it is the only item of expense that can be compared, but a better consideration of it may be had from a study of Table 26. The entry entitled "Total number of men making up the ordinary crews" must be accepted as indicating the total number of men required to work all the reporting craft, and not the total number of men employed during the year. The number of men making up the complement of the crews on reporting vessels in 1880 was 9,143, while in 1889 the number reported was 11,159. To these there was paid out as wages during 1880 \$3,293,964, while in 1889 the total wages paid amounted to \$4,235,980. The average annual wages per man for the first-mentioned year was \$360.27, and \$379.60 for 1889, an average increase of wages per man of \$19.33.

FREIGHT AND PASSENGER TRAFFIC.

The explanation of the abnormal increase of freight movement for 1889 over that of 1880, as given in Table 27, is a twofold one. In the first place the increase of steamers as freight carrying vessels has been unusually large, the fleet of 1889 (as it will be remembered was shown in Table 24) being more than 100 per cent greater than it was in 1880, while the tonnage had just about trebled. This means that the increase of steamer carried freight would be the largest of any portion of the lake traffic, and if the tonnage of the fleet has increased threefold there is no good reason why the freight movement might not have been increased in the same ratio. The figures of freight movement as given in Table 27, however (4,368,171 tons in 1880 and 20,143,483 tons in 1889), show a more than quadruple increase, and the other part of the explanation is that the means employed to secure a full report in 1889 were further reaching than those which could be availed of in 1880. The increase in passenger movement, it

will be observed, while it does not show any such extraordinary accretion, is still a large one, the total movement for 1880 standing at 1,356,010 passengers against 2,235,993 in 1889. These totals were made up of 926,250 regular and excursion passengers and 429,760 ferry passengers carried in 1880 and 1,612,519 regular and excursion and 623,474 ferry passengers carried in 1889.

FLEETS IN 1880 AND 1889.

The comparative statistics found in Table 28 and the 5 following tables have been gathered from the reports of the bureau of navigation. It will be noticed that although the total of the fleet for 1889 is the same in both the reports of the Commissioner of Navigation and the Census, the component parts do not correspond. The two reports stand as follows:

EQUIPMENT.	Census report.	Report of Commissioner of Navigation.
Total	2,737	2,737
Steamers	1,467	1,436
Sailing vessels	962	1,251
Unrigged	308	50

The only difference between these two lists is that of the distribution of the unrigged. If the Commissioner's 50 barges are subtracted from the census 308 unrigged, 258 unrigged will remain to be distributed among the steamers and sailing vessels. Next it will be seen that the census report gives 1,467 steamers, while the Commissioner's is 1,436, which means that the census has grouped 31 more craft under the head of steamers than the Commissioner has done. Adding the extra number of unrigged, 258, to the 31 surplus steamers, a total of 289 is reached, which is exactly the number of sailing vessels required to raise the census 962 to the Commissioner's 1,251. The yearly details afforded in Tables 28, 29, and 30 form an interesting record, but the pith of the subject is found in the recapitulation of the 10 years, wherein the addition of the individual records of the various districts is inserted, the total representing the lake fleet for each of the years in question. No clearer presentation of the gradual change in the class of craft in use on the lakes can be made than is found in this recapitulation, for while the number and tonnage of the entire fleet has risen from 2,487 craft with an aggregate tonnage of 552,342 tons in 1880 to 2,737 craft with an aggregate tonnage of 900,847 tons in 1889, it will be seen that the increase has been made only in the steamer fleet, and that there has been a steady diminution in both the sailing vessels and barges registered in the various ports. The sailing vessels, which numbered 1,415 in 1880, had dropped to 1,332 in 1883 and to 1,251 in 1889. While, however, the number had thus dwindled, the tonnage, it will be seen, displayed an increase, for, although it was 302,265 tons in 1880, it had risen to 322,694 tons in 1889, notwithstanding the fact that the number had decreased. The explanation, of course, lies in the circumstance already alluded to, the increased average tonnage of the vessels built in late years. In the case of the barges, however, the diminution has been a steady one in both number and tonnage. In 1880 the number of registered barges was 160, with a tonnage of 40,612 tons; by 1884 it had dropped to 120, with a tonnage of 33,326 tons, while by 1889 the number had decreased to 50 and the tonnage to 6,948 tons.

SHIPBUILDING RECORDS.

Tables 31 and 32 form a record of shipbuilding for the same 10 years, 1880-1889, that have been used in the 3 preceding tables. Table 31 gives the figures from the yards of each customs district and for the construction of steamers, sailing vessels, and barges; while Table 32 deals only with the steamers built during each of the 10 years, and then considers them under the various methods of propulsion, that is, whether propeller, side-wheel, or stern-wheel. Each table is supplemented by a recapitulation, in which only the totals for the whole lake system are inserted.

A study of Table 31 shows that if arranged in the order of their importance as shipbuilding centers, the different customs districts would stand as is shown in the following table:

TABLE F.—STATEMENT SHOWING THE TOTAL NUMBER OF REGISTERED VESSELS OF ALL CLASSES BUILT IN THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND RIVER ST. LAWRENCE DURING THE YEARS 1880-1889, THE DISTRICTS BEING ARRANGED IN THE ORDER OF THEIR IMPORTANCE.

CUSTOMS DISTRICTS.	Total.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889
Total	1,375	117	175	199	134	110	95	66	117	183	179
Huron	245	21	30	36	24	19	14	9	22	31	39
Michigan	206	23	23	35	20	18	11	13	18	17	28
Milwaukee	182	16	23	28	21	8	15	6	7	30	28
Buffalo creek	180	9	31	23	22	20	8	10	14	23	20
Detroit	156	21	24	23	11	15	9	3	11	19	20
Cuyahoga	123	9	14	18	8	7	4	5	12	23	23
Chicago	64	1	6	15	12	5	8	3	9	3	2
Cape Vincent	41	5	4	3	3	2	10	2	2	6	4
Sandusky	29	3	3	5	1	2	3	5		5	2
Superior	28		5	4	3	3	1	2	2	5	3
Oswego	25	3	6	1	3	1		1	4	5	1
Niagara	23	2		3		1	1		8	7	1
Oswegatchie	20	1	1	1	1	4	5	3		3	1
Miami	19	2	3		4	2	1			2	5
Erie	14			4			3	1	1	3	2
Genesee	11	1	2			1		2	5		
Duluth	7				1	2	2	1		1	
Dunkirk	2								2		

From the preceding summary it is seen that the districts of Huron, Michigan, Milwaukee, Buffalo, Detroit, and Cuyahoga (Cleveland) easily lead. It will be seen, too, that with Detroit as the exception of locality and with the years 1882, 1884, 1885, and 1886 as the exceptions of time, the increase in the shipbuilding records of these leading districts has been a steady one. Contrasting the figures of 1880 and 1889, Huron, for instance, is seen to have gained 18 in her output of vessels, Michigan to have gained 5, Milwaukee 12, Buffalo 11, and Cuyahoga 14. Chicago's shipbuilding record is surprisingly small, and it is only during the past year or two that this city has seriously taken up the industry of construction. The largest record of any one district for any one year in point of number was for Huron, in 1889, when she added 29 steamers of 20,980 tons burden, 9 sailing vessels of 4,306 tons burden, and 1 barge with 174 tons burden to the lake fleet, the total addition being 39 craft, with a tonnage of 25,459 tons. The largest record of any one district for any one year, in point of tonnage, was that of Cuyahoga, in 1889, when she built 23 vessels, with an aggregate tonnage of 31,205 tons, making an average tonnage of 1,357 tons.

To Cuyahoga's shipyards for 1888 must also be credited the second best year's output, the aggregate tonnage of 23 vessels launched in that year rising to 29,786 tons. Next in the order of the year's shipbuilding comes Huron, in 1889, when from the yards of that district there were launched 39 vessels, with a tonnage of 25,459 tons, and next Detroit, for 1889, when 20 vessels were built, with an aggregate tonnage of 22,426 tons. Taking the three years of 1887, 1888, and 1889, it will be seen that during this term shipbuilding on the Great Lakes reached its highest point, the record, as is shown by the subjoined table, being 200 vessels launched, with an aggregate tonnage of 192,281 tons.

TABLE G.—STATEMENT SHOWING THE OUTPUT OF THE THREE LEADING SHIPBUILDING DISTRICTS ON THE GREAT LAKES FOR 3 SELECTED YEARS, TOGETHER WITH THE AVERAGE TONNAGE OF THE VESSELS AND FLEETS.

CUSTOMS DISTRICTS.	Year.	Tonnage.	Number of vessels.	Average tonnage.
Total for 3 districts.....		192, 281	200	961
Cuyahoga.....	1887	16, 351	12	1, 363
	1888	29, 766	23	1, 295
	1889	31, 205	23	1, 357
Total for Cuyahoga.....		77, 342	58	1, 333
Detroit.....	1887	10, 554	11	959
	1888	20, 535	19	1, 081
	1889	22, 426	20	1, 121
Total for Detroit.....		53, 515	50	1, 070
Huron.....	1887	13, 690	22	622
	1888	22, 275	31	719
	1889	25, 459	39	653
Total for Huron.....		61, 424	92	668

A column of average tonnage has been inserted in the preceding table, and from the figures there given a very instructive lesson is to be learned. They show, for instance, that the vessels built at Cuyahoga had the highest average tonnage of any vessels built, irrespective of class. That average ran 1,363, 1,295, and 1,357 tons for 1887, 1888, and 1889, respectively, or an average vessel tonnage of 1,333 tons per vessel for the 3 years. This high average vessel tonnage is indeed a characteristic of shipbuilding on the lakes, but is especially characteristic of the new steamer fleets, as will be seen when Table 32 is reviewed.

The account of barge building, as shown in the recapitulation of Table 31, can hardly be regarded as of very much importance, because, as has been elsewhere said, the barges taken account of by the Commissioner of Navigation are only those that are registered, registration being optional with the owner. Still the table, so far as its value for comparative statistics goes, would not be complete without this entry. It is valuable, too, as showing that both in number and tonnage the building of barges, that is, of registered barges, is yearly diminishing; for while in 1881 the account shows the building of 14 barges with an aggregate tonnage of 3,111 tons, in 1889 only 2 were built, with an aggregate tonnage of 247 tons, and in 1884 there was but 1 small barge built.

The fluctuations of the building of sailing vessels is quite clearly shown in the recapitulation of Table 31, and while there was a gradual rise in the statistics of their construction from 47 in 1880 to 66 in 1882, there was a still more strongly marked declension from 1882 to 1886, in which latter year but 15 sailing vessels were built. The last 3 years in the table did not bring the number back to the large figures of 1882, although these years were marked by an unusual activity in the lake yards, the numbers running 34, 42, and 32. It will be noticed, however, that the aggregate tonnage suffered no such decline.

One has to look to the records of steamer building as shown in this recapitulation table (and in a still more condensed form in the accompanying summary) for the explanation of the increased importance of this branch of the shipbuilding industry.

TABLE H.—SUMMARY SHOWING THE NUMBER AND GROSS TONNAGE OF STEAMERS BUILT ON THE GREAT LAKES AND RIVER ST. LAWRENCE FROM 1880 TO 1889, INCLUSIVE.

YEARS.	Number.	Gross tonnage.
1880.....	63	14, 106. 46
1881.....	109	49, 080. 21
1882.....	128	33, 596. 45
1883.....	100	17, 253. 42
1884.....	80	20, 205. 69
1885.....	64	20, 228. 52
1886.....	46	12, 610. 73
1887.....	75	47, 183. 46
1888.....	139	86, 715. 98
1889.....	145	93, 706. 73

The peculiarity of the steamer-building record, it will be seen, is that, notwithstanding the lack of any uniform increase in number, the tonnage shows a steady rise. Thus, while in 1881 the steamers built numbered 109, their tonnage being 49,080 tons, in 1888 the number of steamers built was 139, but the aggregate tonnage had risen to 86,716 tons; and while in 1882 the number of steamers was 128 as against 145 for 1889, the tonnage of the steamers

built in the first year was 33,596 tons as against 93,707 tons for the latter year. Reduced to the common denomination of average tonnage, these figures of comparison mean that in 1882 the average tonnage of the steamers built was 262.47 tons and that in 1889 the average tonnage of the steamers built was 646.25 tons. When, too, the calculation is made one of percentage, it is found that while the percentage of number showed an increase for 1889 over 1882 of 13.28 per cent, the percentage of tonnage showed an increase for 1889 over 1882 of 178.92 per cent.

METHODS OF PROPULSION.

Further evidence of a continued alteration in the condition of affairs is found in Table 32, wherein a division is made of all the steamers built during the 10 years 1880-1889 into the 3 classes of propulsory power, propeller, side-wheel, and stern-wheel. It will hardly be necessary to make any analysis of the yearly tables wherein the individual entries of the different districts are set down, although the story told there is an interesting one in many particulars, while by turning to the recapitulation the relative favor and use of the different classes may be seen at a glance. During the 10 years but 15 stern wheelers, having a tonnage of 2,696 tons, were built, while in the same period 889 propellers were built, with an aggregate tonnage of 367,275 tons. The side wheelers maintained their position with some firmness, although the difference between the 18 vessels which were built in 1882 and the 6 which were built in 1889 can not fail to be marked.

The popularity of the propeller is unquestioned and unmistakable, and even when a comparison is made between the 2 years of 1881 and 1882 with 1888 and 1889, these being the 4 years of the greatest activity, the increase for the 2 latter years, especially in tonnage, is certainly remarkable. The output of the different localities, so far as the number of steamers built goes, is set down in the following summary:

TABLE J.—STATEMENT SHOWING THE NUMBER OF PROPELLERS, SIDE-WHEEL, AND STERN-WHEEL STEAMERS BUILT IN THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND RIVER ST. LAWRENCE DURING THE YEARS 1880-1889, INCLUSIVE.

CUSTOMS DISTRICTS.	Propellers.	Side wheel.	Stern wheel.
Total	889	45	15
Oswegatchie.....	14		
Cape Vincent.....	19	2	
Oswego.....	18		
Genesee.....	8	2	
Buffalo creek.....	160	3	
Cuyahoga.....	89	13	3
Sandusky.....	15	3	2
Miami.....	12	1	1
Detroit.....	103	7	
Huron.....	126	1	
Michigan.....	133	1	7
Chicago.....	45	1	
Milwaukee.....	100	9	2
Superior.....	13		
Niagara.....	17		
Erie.....	13	1	
Duluth.....	2	1	
Dunkirk.....	2		

MAGAZINE STATEMENTS.

The relative favor and use of the different classes of steamers may be easily gathered from the preceding table. Concerning the changes which have marked the history of construction of the whole lake fleet, Lieutenant Charles C. Rogers, United States Navy, says, in an article recently published in Scribner's:

The history of marine architecture does not furnish another instance of so rapid and complete a revolution in the material and structure of floating equipment as has taken place on the Great Lakes since 1886. In that year the total valuation of the vessels by Lloyds was about \$30,600,000. In 1889 60 new steamers and 11 sailing vessels, aggregating 70,000 tons and valued at \$6,650,000, were added to the fleet. During the 4 winters of 1886-1890 the tonnage of the lakes was nearly doubled, 206 vessels, measuring 399,975 tons, were turned out of the shipyards, with a valuation of \$27,389,000. During the same time the number of steamers of more than 1,500 net register tons increased from 21 to 110. The two valuations of the fleet already presented differ by more than \$9,000,000, but either one emphasizes the fact of the very recent and extraordinary growth of this commerce and renders it difficult to predict the increase in the tonnage and the size of vessels upon the lakes during the few years that remain till the opening of the next century. * * * The sailing vessel has almost disappeared from the lakes; the square-rigged ship is no longer seen, and only a few of the great cargo-carrying schooners are left. The sailing fleet was succeeded by the propellers, * * * with its tow of one or more consorts, and it in turn is giving way to the modern steamer, maintained at a little more than one-half the cost, while having a carrying capacity quite as great, a speed double that of the propeller and consort, and making two or three round trips for one of the tow. * * * The shipbuilders of the lakes are progressive, and keep pace with all improvements in marine architecture. Steel vessels are built with

double bottoms, water-tight compartments, triple expansion engines, and modern electrical and steam appliances. The structural strength may be realized from the fact that a large proportion are built for the trade in iron ore. At a time trial at Escanaba, during the summer of 1887, a steamer was loaded with over 2,000 tons of ore and steamed away from the dock in 45 minutes after being placed under the chutes. The record shows that another vessel was loaded with 2,800 tons of coal in 1 hour and 50 minutes; 300 tons for fuel were put on board in another hour; so that in 2 hours and 50 minutes after opening the hatches the vessel was loaded and coaled. That ordinary seagoing ships will not stand the strain of this traffic is demonstrated by the fact that 4 steel steamers built on the Clyde for Canadian owners had to be repaired and strengthened throughout after one season's work to fit them for further service. These vessels steamed across the Atlantic, were cut into halves on the lower St. Lawrence, the sections being then towed through the canals and put together on the lakes. 2 more were built on the Clyde, with the benefits of this experience and of the builder's visits to our northwestern shipyards. * * * The record of large cargoes is equally creditable. The Maryland, belonging to the Interocean Transportation Company of Milwaukee, has carried 3,737 net tons of ore from Escanaba to South Chicago on a draft of 16.5 feet; the E. C. Pope, owned by Eddy Brothers, of Bay city, transported 3,628 net tons from Escanaba to Buffalo on 16 feet draft, and 3,167 tons from Ashland to Lake Erie, drawing 14.5 feet. * * * In the Cleveland shipyards were built the magnificent iron and steel fleets of the Northern Steamship Company, the Mutual Transportation line, and the Minnesota Iron Company of Chicago, costing \$200,000 each; those of the Western transit line of the New York Central railroad, the equals in speed, style, and carrying capacity to any ocean vessel, and the 5 passenger steamers of the Detroit and Cleveland Steam Navigation Company, costing as high as \$350,000 each, and ranking among the finest passenger boats in the country. From the shipyards of Chicago steel steamers of 4,000 to 5,000 tons displacement have been launched. 5 large steamer lines ply regularly to ports on lakes Erie, Huron, Superior, and Michigan, with a combined fleet of over 60 steamers and a capacity ranging from 1,750 tons to more than 3,000 tons. The Union Steamboat Company owns the Oswego and Chemung, the largest steamers of the lakes, with 4,800 tons displacement and a total cost of \$560,000; and it was on these lakes that the whaleback was first put to running.

FIGURES FROM LLOYDS.

In addition to the comparative statistics which have been collated from the census returns for 1880 and 1890 and from the data collected by the Commissioner of Navigation, a third series has been compiled from Lloyds Inland Register for the years 1886, 1887, 1888, 1889, and 1890. A bulletin giving these figures in detail was prepared by Mr. Charles H. Keep, under the direction of Professor Henry C. Adams, and was issued in February, 1891; but in view of the fact that the statistics in question cover but 6 years out of the decade and that the comparative statistics secured from the other sources just referred to are so much more comprehensive, it will be scarcely necessary to do more than to present a résumé containing the salient facts of the tables given in the bulletin in question.

Before considering these tables the reader should be notified that barges are included under the head of sailing vessels, and that no comparison between the totals secured from Lloyds and those from other sources can be effected owing to the fact that the Register only takes cognizance of certain craft, while so far as the values go those quoted by Lloyds are plainly excessive:

TABLE K.—STATEMENT SHOWING THE COMPARATIVE STATISTICS OF THE NUMBER, TONNAGE, AND VALUE OF THE FLOATING EQUIPMENT OF THE GREAT LAKES AND RIVER ST. LAWRENCE, DRAWN FROM LLOYDS REGISTER FOR THE YEARS 1886, 1887, 1888, 1889, AND 1890.

CLASSIFICATION OF VESSELS.	1886			1887			1888			1889			1890		
	No. of ves-	Net ton- nage of sels.	Valuation of vessels.	No. of ves-	Net ton- nage of sels.	Valuation of vessels.	No. of ves-	Net ton- nage of sels.	Valuation of vessels.	No. of ves-	Net ton- nage of sels.	Valuation of vessels.	No. of ves-	Net ton- nage of sels.	Valuation of vessels.
Total	1,997	634,652	\$30,597,450	1,829	606,353	\$35,634,950	1,884	657,723	\$42,210,200	1,947	753,819	\$49,957,550	2,055	826,300	\$58,128,500
A—Structure:															
Side-wheel steamers	43	14,150	1,494,500	38	13,692	1,637,000	36	13,742	1,609,500	39	16,443	2,163,000	42	16,949	2,209,500
Propellers under 1,000 tons.	335	177,402	9,475,100	354	125,057	10,149,100	379	129,744	11,353,300	409	149,793	12,652,800	431	154,232	13,905,600
Propellers between 1,000 and 1,500 tons.	72	86,728	5,935,000	92	112,968	8,841,000	105	129,410	10,246,000	116	144,513	11,379,000	122	151,611	11,864,000
Propellers over 1,500 tons.	21	34,869	2,645,000	31	51,761	4,085,000	46	78,103	6,923,000	75	130,235	11,802,000	110	188,390	17,737,000
Tugs	466	11,737	2,497,600	424	10,847	2,378,400	423	11,371	2,439,100	426	12,323	2,703,750	448	12,520	2,778,250
Schooners	730	183,792	5,398,850	587	166,167	4,972,050	582	164,240	5,091,800	580	164,285	4,947,500	577	158,620	4,726,150
Barges	330	125,975	3,151,400	303	125,861	3,572,400	313	131,113	3,947,500	302	136,227	4,309,500	325	144,038	4,968,000
B—Material:															
Steel	6	6,459	694,000	11	14,134	1,654,000	23	31,928	3,925,000	41	49,784	7,324,500	68	99,457	11,964,500
Iron	35	22,714	2,675,000	37	23,464	2,815,000	39	24,940	2,765,000	34	24,450	2,608,500	39	24,673	2,638,000
Composite	2	63	39,000	4	2,391	319,000	7	5,178	579,000	9	9,996	1,079,000	13	13,554	1,465,000
Wood	1,954	603,416	27,169,450	1,777	566,364	30,846,950	1,815	595,677	34,941,200	1,863	669,589	38,945,550	1,935	688,676	42,061,000
C—Sail or steam:															
Steam vessels	937	324,885	22,047,200	939	314,325	27,090,500	989	362,370	32,570,900	1,065	453,307	40,700,550	1,153	523,702	48,434,350
Sailing vessels	1,060	309,767	8,550,250	890	292,028	8,544,450	895	295,353	9,639,300	882	300,512	9,257,000	902	302,658	9,694,150

CHANGES IN EQUIPMENT.

In the text of Bulletin No. 29, Professor Adams said:

It would be difficult to add anything to the impression which a study of the preceding figures must produce. There are, however, certain facts to which it may not be inappropriate to call particular attention.

First. The figures presented in the tables show that sailing vessels are fast giving place to vessels propelled by steam. Taking schooners and barges together, and comparing the figures for 1886 and 1890, it appears that there has been a decrease of 14.91 per cent in number, 2.29 per cent in tonnage, and 13.38 per cent in value. Taking schooners and barges separately, the greater decrease is in schooners. Thus, although there is an actual decrease in the number of barges in 1890 as compared with those of 1886, there is an increase of 14.34 per cent in the tonnage of this class of vessels. These facts indicate an increased use of steam both for immediate propulsion and for towing.

Second. The figures show that steam vessels which have been built during the last 4 years are of a constantly increasing size. In 1886 there were but 21 propellers of over 1,500 tons burden, in 1890 there were 110 propellers of this class. But the tonnage of vessels of this class has increased more rapidly than their number. Thus the total tonnage of the 21 vessels of over 1,500 tons burden in 1886 was 34,868 tons, while the total tonnage of the 110 vessels in 1890 was 188,390 tons; that is to say, the percentage of increase in the number of vessels is 423.81, while the percentage of increase in tonnage is 440.29. The total value of this class of vessels in 1886 was \$2,645,000, in 1890 it was \$15,000,092, showing an increase for the 4 years of 570.59 per cent. A comparison similar to this for any of the classes of vessels, when taken in connection with well-known facts relative to the ownership of these large vessels, clearly shows that the traffic of the Great Lakes is rapidly coming under the control of companies having at their command large capital.

Third. The same conclusion may be arrived at if the changes in the material made use of in the building of new vessels are considered. Steel is more generally used for large vessels than iron, composite, or wood. In 1886 there were but 6 steel vessels afloat on the lakes, with an aggregate tonnage of 6,459 tons and an aggregate value of \$694,000. If by the side of these figures are placed the corresponding data for the year 1890, it appears that there are now 68 steel vessels afloat on the lakes, with an aggregate tonnage of 99,457 tons and an aggregate value of \$11,964,000. This shows an increase in number of vessels of 1,033.33 per cent, in tonnage of 1,439.82 per cent, and in valuation of 1,623.99 per cent. Iron and wooden vessels have barely held their own during these years. Vessels built of composite, on the other hand, show a marked increase, both in number, tonnage, and value. These facts indicate that a new factor is being introduced into the problem of transcontinental transportation.

THE THREE CANALS.

The comparative statistics furnished in the 3 series of tables which have just been reviewed are important and valuable as showing how steady and rapid the growth of trade has been on all the lakes, treated as a system, but it may be stated without any attempt at discrimination that the development of Lake Superior's commerce has been exceptionally remarkable. This has been undoubtedly due, in a very large part, to the opening of the St. Marys Falls canal, and it will be quite in keeping with the plan of the text to consider at this point the results which have attended the inception and extensions of this passageway between the "Brother to the Sea" and the lower lakes, and then to somewhat more briefly consider the returns of the other 2 statistical keys to the commerce of the Great Lakes, the Detroit river and canal and the Welland canal.

THE ST. MARYS FALLS CANAL.

Long after a population had moved into the states and territories bordering on the other lakes of the system Lake Superior was unknown and unexplored. "For two centuries", says General Poe, "this greatest of all inland seas lay in distant isolation enfolded by a wilderness, the coming civilization heralded only by the missionary and fur trader coasting along its silent shores". The mineral treasures in this "enfolding wilderness", originally drew the explorer up the St. Marys river, but it was not until 1855, when the canal and first lock at St. Marys were completed, that the commerce of Lake Superior can be said to have had any appreciable existence. It will not be necessary to follow the growth of the commerce through the canal year by year, but taking the traffic report from 1881, at which date the new and larger lock was constructed, it is seen that in 1882 there passed the canal 2,029,000 tons of freight, in 1883 there were 2,267,000 tons; in 1885 these figures had risen to 2,356,000 tons, in 1886 to 4,527,750 tons, in 1887 to 5,494,649 tons; that in 1888 the figures passed the six-million limit, standing at 6,411,423 tons; that in 1889 they were 7,516,022 tons, and that in 1890 they had risen to 9,041,213 tons, a record of increase in traffic which is certainly unparalleled.

Taking up the subject in a somewhat more detailed form, a treatment which the importance and pertinency of the subject merits, it is found that the canal for 1889 was open to navigation 234 days, the first vessel having passed April 15, and the last December 4, 1889, thus making the season 22 days longer than that of 1888. The average number of vessels passing per day for the whole season was 40.9, and for the months of June, July, and August, 50. The number of vessel passages of all classes exceeded that of the preceding season by 1,776, or a little less than 23 per cent. The increase in the freight movement for 1889 over that of 1888 was 1,104,599 tons, or 17 per cent, while the increase in registered tonnage was 2,091,276 tons, or 41 per cent. This wide discrepancy was due to the low stage of water, which did not permit vessels to carry full loads. Tables L, M, and N, on the following page, show these facts, as well as furnish a comparative statement of the amount and value of commerce passing through the canal for the calendar years 1888 and 1889.

The unclassified freight, it will be observed, has been brought down to 4 per cent of the total freight movement, and even this small percentage may be reduced by the statement that it includes 2,946 tons of wool and 304 tons of hides.

No returns had been received up to the time of writing of a sufficiently recent date to be available for the construction of a detailed comparative table for 1889 and 1890, but the following statement of the business of the canal for the fiscal year ending June 30, 1890, will show that the steady increase of business marking the preceding years would surely attend the report for the completed season of 1890, while the statement immediately following (Table P) will show by totals the uninterrupted growth of the canal's commercial importance for the 4 calendar years 1887-1890, inclusive:

TABLE O.—STATEMENT OF THE BUSINESS OF THE ST. MARYS FALLS CANAL DURING THE FISCAL YEAR ENDED JUNE 30, 1890.

NUMBER AND CLASS OF VESSELS PASSED.	
Side-wheel steamers.....	76
Propellers.....	6, 806
Sailing vessels.....	2, 834
Rafts and unregistered craft.....	392
Total passages.....	10, 108

FREIGHT AND PASSENGER TRAFFIC.	
Coal (net tons).....	1, 894, 483
Copper (net tons).....	36, 086
Flour (barrels).....	2, 592, 736
Wheat (bushels).....	19, 459, 736
Other grain (bushels).....	2, 732, 698
Iron ore (net tons).....	4, 404, 935
Pig and manufactured iron (net tons).....	72, 163
Salt (barrels).....	5, 905
Lumber (feet, board measure).....	308, 032, 000
Building stone (net tons).....	40, 829
Wool (net tons).....	2, 597
Hides (net tons).....	455
Miscellaneous and unclassified freight (net tons).....	344, 425
Number of passengers.....	24, 125
Total registered tonnage (net tons).....	7, 899, 604
Total freight tonnage (net tons).....	8, 288, 580
Total registered tonnage since opening the canal in 1855 (net tons).....	56, 539, 876

TABLE P.—STATEMENT SHOWING THE COMPARATIVE TOTALS OF THE ST. MARYS FALLS CANAL FOR THE YEARS 1887, 1888, 1889, AND 1890.

YEARS.	TONNAGE PASSED THROUGH.		Valuation of cargoes.	Cost of water carriage.	Cost per ton-mile.	Value of the fleet.
	Registered vessel tonnage.	Net tons actual freight.				
1887.....	4, 897, 598	5, 494, 649	\$79, 031, 757	\$10, 075, 153	2.3 mills.	\$19, 773, 950
1888.....	5, 130, 659	6, 411, 423	82, 156, 021	7, 883, 077	1.5 mills.	21, 895, 400
1889.....	7, 221, 935	7, 516, 022	83, 732, 528	8, 634, 246	1.5 mills.	28, 928, 200
1890.....	8, 454, 435	9, 041, 213	102, 214, 948	9, 472, 214	1.3 mills.	29, 635, 500

By comparing the freight tonnage given in Table O as passing through the St. Marys Falls canal with the total receipts and shipments by Lake Superior ports it will be noticed that the canal tonnage exceeds the figures given in Table 7, the canal tonnage being 8,288,580 tons, while the Lake Superior tonnage stands at only 7,925,930, a difference of 362,650 tons. This is due in part to the fact that the year covered by the canal report is made up of the last 6 months of the year 1889 and the first 6 months of the year 1890, while the year from which the lake report is made is composed of the 12 months ending December 31, 1889, and it will be remembered that the winter embraced within the fiscal year 1889-1890 was a remarkably open one, thus permitting a late fall and an early spring trade. The discrepancy referred to is also partly explained by the fact that the tables of receipts and shipments for Lake Superior do not include the traffic between Canadian ports, and consequently take no account of the lake commerce of the Canadian Pacific railway originating at Port Arthur and passing through the canal. Some idea of the extent of this commerce may be gained from the fact that of the wheat passing through the canal during the lake navigation season of 1889 not less than 2,603,539 bushels are known to have been shipped from Port Arthur, while it is believed that the total shipments from that port may have been as high as 3,000,000 bushels, or 90,000 tons.

The statement for the fiscal year of 1889-1890 is particularly interesting because it rounds up the period of 35 years, which date back to the opening of the canal in 1855. The statistics of freight movement have not been kept with sufficient exactness for that number of years to give reliable details, but the records show that for the 35 years of its existence ending June 30, 1890, there had passed through the canal no less than 56,539,876 tons of freight. It is no less interesting to find that of this aggregate 35,588,389 tons, or about five-eighths of the whole, had passed since the opening of the new lock, September 1, 1881. The statement for the fiscal year 1889-1890 also includes the interesting but unspecified fact that during the last month of the fiscal year (June, 1890) the amount of freight which passed through the canal was 1,413,001 tons, the largest monthly amount on record, and that on one day in the same year, May 26, 1890, there passed through 74,686 tons of freight, this being the largest daily amount ever recorded. From 7:10 a. m., May 25, to 5:58 a. m., May 27, 1890, a period of 46 hours and 48 minutes, the lock was constantly in motion. These figures show that the limit of the present canal's capacity is being rapidly approached. In fact, it was seen as long ago as 1886 that the ultimate capacity of the canal would be reached in a very few years, and a still further enlargement was then proposed, which is now in progress. This will consist of a lock 800 feet long by 100 feet wide, with a depth of 21 feet on the sills, a lift of 18 feet (the full descent of St. Marys Falls), and the deepening of the canal to 20 feet. The new lock is to be placed upon the site of the two old ones, which lie between the present lock and the river, and will be used in connection with that now in operation. The cost of the enlargement is estimated at \$4,738,865; the time for its execution was set for 5 years, and when finished it will be the largest single lock in the world. If on the completion of this enlargement the traffic of the canal takes such an upward bound as it did after the second enlargement, and there is no reason to doubt that it will, it seems certain that its traffic returns will still more distinctly lead those of the Suez canal than they do now.

OPERATIONS AND EARNINGS.—Among the various facts and figures which have been gathered at the canal as the "statistical key" to so large a portion of the lake traffic, none are more interesting than those of the earnings and operations of the craft passing the canal. In order to determine the total amount paid for the lake transportation of the freight carried through the canal during the season of 1889, a calculation of the freight rates between Lake Superior and the lower lake ports was made from the results of a diligent collection of data by the United States Army engineers in charge, and this adopted mean rate was applied to the amounts of freight passing the canal with the result seen in the following table, which shows the total cost of carrying the freight; or, to put it in another way, it shows the gross earnings of the various vessels made by the transportation of the indicated freight:

TABLE Q.—STATEMENT SHOWING THE FREIGHT RATE PER UNIT OF THE SEVERAL COMMODITIES CARRIED THROUGH THE ST. MARYS FALLS CANAL DURING THE SEASON OF 1889, TOGETHER WITH THE TOTAL AMOUNTS PAID FOR THE MOVEMENTS OF THE TOTAL COMMODITIES.

ARTICLES.	Unit.	Quantity.	Freight rate per unit.	Amount paid for freighting.
Total				\$8,634,246.63
Coal	Ton	1,620,197	\$0.47	765,722.50
Flour	Barrel	2,228,707	0.18	401,167.26
Wheat	Bushel	16,231,854	0.04	649,274.16
Other grain	Bushel	2,133,245	0.03½	69,330.46
Manufactured iron	Ton	31,545	2.10	66,244.50
Pig iron	Ton	26,016	1.45	37,723.20
Salt	Barrel	168,250	0.18	30,285.00
Copper	Ton	33,456	2.25	75,276.00
Iron ore	Ton	4,095,855	1.14	4,669,274.70
Lumber	M feet, B. M. ..	315,554	2.70	851,995.80
Silver ore and bullion	Ton	5,947	1.90	11,299.30
Building stone	Ton	33,538	2.07	69,423.66
General merchandise	Ton	312,410	3.00	937,230.00

The nature of the data from which the preceding table was formed was such that it included cost of loading and unloading.

Put into a condensed form the results obtained were as follows:

Total mile-tons	5,940,646,352
Total freight paid	\$8,634,246.63
Cost per ton-mile	mills.. 1.5
Average distance freight was carried	miles.. 790.4

CANADIAN AND AMERICAN TONNAGE.—It has been said that the returns of tonnage made for the canal embrace both American and Canadian craft, and in the following statement a segregation of these is made, it being understood that the number of vessels given represents the actual number of craft which passed the canal during the year 1889, counted only as a fleet, and not as a repetitive aggregate:

TABLE R.—STATEMENT SHOWING THE NUMBER, TONNAGE, AND VALUE, AND PASSENGER AND FREIGHT TRAFFIC OF AMERICAN AND CANADIAN CRAFT PASSING THROUGH THE ST. MARYS FALLS CANAL IN THE SEASON OF 1889.

CRAFT.	Number.	Vessel tonnage.	Freight tonnage.	Number of passengers.	Valuation of vessels.
Total	581	394,727	7,516,022	25,712	\$26,989,389
American vessels	521	371,264	7,254,309	13,740	25,391,780
Steamers (registered).....	308	250,959	4,964,724	13,740	20,947,500
Sail vessels (registered).....	208	118,595	2,253,900		4,381,100
Sail vessels (unregistered).....	5	21,710	235,685		263,180
Canadian vessels	60	23,463	261,713	11,972	1,597,600
Steamers (registered).....	37	15,422	211,075	11,972	1,385,000
Sail vessels (registered).....	23	8,041	50,638		212,600

a Estimated.

The following facts regarding this canal may be stated in conclusion:

The comparatively small average distance which freight was carried in 1889 is because in that year there was a falling off in the transportation of wheat, already referred to, and an increase in that of ore, which is a shorter distance freight.

The greatest number of miles run by any one steamer during 1889 was 33,344, by the propeller Athabaska.

The greatest amount of freight carried and the greatest number of mile-tons to the credit of any one vessel during the season was by the freight propeller Northern Wave, which amounted to 59,001 net tons of freight and 58,311,447 mile-tons.

The largest single cargo carried by a steamer was 2,839 net tons, by the freight propeller Pontiac.

The largest single cargo carried by any vessel was by the lumber barge Wahnapatæ, and consisted of 2,030,000 feet, board measure, green lumber, estimated at 4,060 tons.

DETROIT RIVER AND CANAL.

Just as the St. Marys Falls canal stands as the statistical key to the commerce entering and leaving Lake Superior, so the Detroit river stands between that of Lake Erie and the upper lakes. In the case of the St. Marys Falls canal a very large portion of the traffic was that which owes its origin to Lake Superior and the northwest territory, while in the case of Detroit river all the lakes can be said to be brought under contribution. A description of the improvements which have been made by the United States Army Corps of Engineers in and about Detroit river will be found in that portion of the text which may be considered as an annotation on the table of congressional appropriations. As to the commerce of American craft which passes through Detroit river, the round figures for the navigation season of 1889 are 90,000 tons of registered tonnage per day, or nearly 20,000,000 tons per year. The exact figures for the 234 days of navigation, which made up that season, are set down in the following summary, it being understood that the figures of number and tonnage are the aggregates of every day's record:

TABLE S.—STATEMENT SHOWING THE NUMBER AND TONNAGE OF THE VESSELS PASSING THROUGH DETROIT RIVER DURING THE SEASON OF 1889, WITH A SEGREGATION BY NATIONALITIES.

NATIONALITIES.	Number.	Tonnage.
Total	59,737	36,203,606
American.....	32,415	19,646,000
Canadian	27,322	16,557,606

The figures of comparison between the Canadian traffic of the seasons of 1888 and 1889 are not at hand, but from the returns made of the commerce in American bottoms it is found that the increase in the number of vessels passing Detroit river in 1889 over 1888 was 1,011, while the increase in the tonnage was 546,940 tons.

The freight movement through the river for the year in American craft is given by principal commodities in the following table, and it is an interesting point to note how close is the total of freight traffic to that of the

total of vessel tonnage, namely, 19,717,860 tons of freight to 19,646,000 tons of tonnage, which is the aggregate of the registered tonnage of the 32,415 American vessels which passed and repassed through the river in the process of carrying the freight in question:

TABLE T.—STATEMENT SHOWING THE ESTIMATED WEIGHT IN TONS OF THE FREIGHT PASSING THROUGH DETROIT RIVER IN AMERICAN VESSELS FOR THE SEASON OF 1889.

Barley.....	38,294
Coal.....	5,313,419
Corn.....	1,777,750
Flour.....	655,395
Iron ore.....	6,610,293
Lumber.....	2,545,792
Laths.....	23,699
Oats.....	262,896
Pig iron.....	94,337
Salt.....	47,737
Shingles.....	27,668
Wheat.....	824,451
Other grain.....	105,412
Miscellaneous.....	1,390,717
Total.....	19,717,860

THE WELLAND CANAL.

The third great canal to be mentioned when considering the facilities of intercommunication between the lakes, and which occupies a position in their statistical economy almost equal in importance to that of the St. Marys Falls canal and Detroit river, is the Welland canal, connecting Lake Erie and Lake Ontario. The present Welland canal is so different in many of its features to the old Welland canal that it is known as and practically is a new canal. It starts from Port Colborne, on Lake Erie, at the head of Gravelly bay, and reaches a summit level near Allanburg, from which point to Port Dalhousie, on Lake Ontario, a distance of 12 miles, there are 25 lift locks and regulating weirs, piers, and abutments for 12 road and 2 railroad bridges, 6 culverts to carry water courses under the canal and 1 for a public road, and a tunnel for the Great Western railroad. The engineering difficulties were largely encountered in this northern division, although in the southern division, which embraces the 15 miles between Port Colborne and Allanburg, the canal is crossed by 6 road and 3 railroad bridges, including an aqueduct of large dimensions through the Chippewa river, a lock at Welland, and another with 4 sets of gates at Port Colborne. The money expended on the undertaking up to 1889 amounted to \$23,787,950, since which time the amount has been raised to nearly \$25,000,000. Close statistics can not be given of the traffic conducted through the Welland canal, the work being under the control of the Canadian government, but it is stated by Mr. W. A. Livingstone, of Detroit, in his pamphlet entitled "The Great Lakes Problem", that the total traffic of actual freight in 1890 through the Welland canal was 1,016,165 net tons; that the quantity passing eastward through the canal from United States ports to United States ports had increased from 96,226 tons in 1881 to 318,259 tons in 1890, and that the increase in this movement in 1890 over that of 1880 was 20,906 tons.

The whaleback steamers of the American Steel Barge Company are the largest vessels that have passed through the Welland canal, and they are 265 feet long, 38 feet beam, and have an average draft of 15 feet when loaded.

CONGRESSIONAL APPROPRIATIONS.

The earliest appropriation made by the government for the improvement of the harbors of the Great Lakes and river St. Lawrence was in 1823, when an appropriation was made for the survey of Erie harbor of Pennsylvania. Since that time nearly 150 localities, scattered over the Great Lakes and St. Lawrence and Niagara rivers, have been improved under congressional aid. The sums appropriated up to the close of 1890 amounted to \$40,912,975, of which amount \$23,700,565 was appropriated up to and including 1879, \$12,999,165 was included in the decade marked by 1880-1889, inclusive, the remaining \$4,213,245 having been appropriated by the act of Congress of September, 1890.

For the improvement of the various harbors and shipping points on Lake Superior there has been appropriated \$9,233,300, the earliest appropriation going back to 1858, between which time and the close of 1879 there was appropriated \$3,467,555, the sum of \$3,738,500 having been appropriated from 1880 to 1889, and \$2,027,245 by the act of Congress of September, 1890.

For Lakes Huron and St. Clair the appropriations have been \$3,691,700, of which amount \$1,934,310 was appropriated from 1852 to the close of 1879, \$1,511,890 for the decade ending with 1889, and \$245,500 by the act of Congress of September, 1890.

The appropriations for the improvement of Lake Michigan ports have been \$11,251,243, the earliest appropriation being in 1826, for La Plaisance bay, when that harbor was improved by the expenditure of \$19,803. The act of Congress of September, 1890, allotted \$893,000 for the improvement of all the lake points; but the largest appropriations were made up to and including 1879, by which time \$6,440,843 of the public moneys had been granted for the lake improvements, while for the period 1880-1889 the appropriations amounted to \$3,917,400.

The appropriations for Lake Erie began the earliest of all the lakes, the first, as was noted in the previous paragraph, being made in 1823. The total amount appropriated for this lake up to the close of 1890 was \$8,879,336, of which amount by far the largest portion, \$5,362,336, was appropriated by the close of 1879, the appropriations for the years 1880-1889 being \$2,712,500, and the sum granted by the act of Congress of September, 1890, being \$804,500.

Lake Ontario's appropriations have amounted to \$3,592,730, of which amount \$2,581,855 was appropriated up to the close of 1879, \$895,875 during the 10 years ending 1889, and \$115,000 by the 1890 act of Congress.

On the improvements of St. Lawrence river there has been expended \$251,506 and on those of Niagara river the appropriations have amounted to \$233,598.

Between the sum of these amounts, however, and the \$40,912,975 given as the total appropriation for the Great Lakes there is a difference of \$3,779,562, that sum being made up by general appropriations for which there was no indication of special locality, but which were made for such comprehensive purposes as general survey, chart making, and the building of survey steamers and dredging machines.

In the assignment of appropriations made in the preceding paragraphs the lakes have been made the recognized divisions, but when charged to the states which lie around the lakes the amounts stand as set down in the following statement:

TABLE U.—STATEMENT SHOWING THE AMOUNTS APPROPRIATED BY CONGRESS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS OF THE GREAT LAKES AND ST. LAWRENCE RIVER, GIVEN BY PERIODS AND ALLOTTED TO THE RESPECTIVE STATES IN WHICH THE HARBORS LIE.

STATES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress September, 1890.	Total appropriations up to date.
Total		\$23,700,565	\$12,999,165	\$4,213,245	\$40,912,975
Minnesota	1871	271,059	413,750	147,350	832,159
Wisconsin	1836	2,408,881	1,483,000	472,305	4,364,276
Michigan	1826	7,266,398	5,790,390	2,298,500	15,355,288
Illinois	1836	1,426,005	1,120,400	205,000	2,751,405
Indiana	1836	679,889	381,250	57,500	1,118,639
Ohio	1825	2,580,987	1,658,500	429,500	4,668,987
Pennsylvania	1823	616,367	235,500	40,000	891,867
New York	1826	4,729,426	1,858,375	503,000	7,150,801
General appropriations, all states	1836	3,721,562	58,000		3,779,562

For convenience of reference the following list of harbors and trading points which have been improved by government aid has been prepared, the localities being grouped under the titles of the lakes on which they are found, with the state of each locality added:

IMPROVED HARBORS AND RIVERS.

LAKE SUPERIOR.

Agate bay, Minnesota.
Ashland harbor, Wisconsin.
Duluth harbor, Minnesota.
Eagle harbor, Michigan.
Grand Marais harbor, Minnesota.
Grand Marais harbor of refuge, Michigan.
Marquette harbor, Michigan.
Ontonagon harbor, Michigan.
Portage Lake ship canal, Michigan.
St. Marys river and St. Marys Falls canal, Michigan.
Superior and St. Louis bays, Wisconsin.

LAKES HURON AND ST. CLAIR.

Alpena harbor (Thunder bay), Michigan.
An Sable river and harbor, Michigan.
Belle river, Michigan.
Black river, Michigan.

LAKES HURON AND ST. CLAIR—continued.

Cheboygan harbor, Michigan.
Clinton river, Michigan.
Clinton harbor, Michigan.
Detroit river, Michigan.
Harbor of refuge at Sand beach, Michigan.
St. Clair river flats and canal, Michigan.
Saginaw river, Michigan.
Sebawaing harbor, Michigan.

LAKE MICHIGAN.

Ahnapee harbor, Wisconsin.
Black Lake harbor, Michigan.
Calumet harbor and river, Illinois.
Cedar river (Green bay), Michigan.
Charlevoix harbor, Michigan.
Chicago harbor, Illinois.
Fox river, mouth of, Wisconsin.
Frankfort harbor, Michigan.

LAKE MICHIGAN—continued.

Grand Haven harbor, Michigan.
Grand river, Michigan.
Green Bay harbor, Wisconsin.
Kenosha harbor, Wisconsin.
Keweenaw harbor, Wisconsin.
Lake Winnebago, Wisconsin.
La Plaisance bay, Michigan.
Ludington harbor, Michigan.
Manistee harbor, Michigan.
Manistique harbor, Michigan.
Manitowoc harbor, Wisconsin.
Menominee harbor, Wisconsin.
Michigan city (outer harbor), Indiana.
Michigan city (inner harbor), Indiana.
Milwaukee bay, Wisconsin.
Milwaukee harbor, Wisconsin.
Muskegon harbor, Michigan.
New Buffalo harbor, Michigan.

IMPROVED HARBORS AND RIVERS—Continued.

LAKE MICHIGAN—continued.

Oconto harbor, Wisconsin.
 Pensaukee harbor, Wisconsin.
 Pentwater harbor, Michigan.
 Petoskey harbor, Michigan.
 Port Washington, Wisconsin.
 Portage Lake harbor of refuge, Michigan.
 Racine harbor, Wisconsin.
 St. Josephs harbor, Michigan.
 St. Josephs river (survey), Michigan.
 Sangatuck harbor, Michigan.
 Sheboygan harbor, Wisconsin.
 South Haven harbor, Michigan.
 Sturgeon bay, Wisconsin.
 Two Rivers harbor, Wisconsin.
 Waukegan harbor, Illinois.
 White river harbor, Michigan.

LAKE ERIE.

Ashtabula harbor, Ohio.
 Black river harbor, Ohio.
 Buffalo harbor, New York.

LAKE ERIE—continued.

Cattaraugus creek, New York.
 Cleveland harbor, Ohio.
 Conneaut harbor, Ohio.
 Cunningham creek, Ohio.
 Dunkirk harbor, New York.
 Erie harbor, Pennsylvania.
 Grand river harbor (Fairport), Ohio.
 Huron river and harbor, Ohio.
 Monroe harbor, Michigan.
 Port Clinton harbor, Ohio.
 Portland harbor, New York.
 Rocky river harbor, Ohio.
 Rouge river, Michigan.
 Sandusky city harbor, Ohio.
 Sandusky river, Ohio.
 Toledo harbor, Ohio.
 Vermilion river, Ohio.

LAKE ONTARIO.

Black river (Sacketts harbor), New York.
 Charlotte harbor, New York.

LAKE ONTARIO—continued.

Great Sodus bay, New York.
 Little Sodus bay, New York.
 Oak Orchard harbor, New York.
 Olcott harbor, New York.
 Oswego harbor, New York.
 Port Ontario harbor, New York.
 Pultneyville harbor, New York.
 Sacketts harbor, New York.
 Sandy creek, New York.
 Wilson harbor, New York.

ST. LAWRENCE RIVER.

Grass river, New York.
 Ogdensburg harbor, New York.
 Sister islands, New York.
 Waddington harbor, New York.

NIAGARA RIVER.

Black Rock harbor, New York.
 Tonawanda harbor, New York.

The importance of the improvement of the shipping facilities of these waters is so undoubted that no excuse is needed for giving space to the subject, and in addition to this bare list of the localities that have been improved the following statement takes up this list and shows what has been done under the appropriations:

LAKE SUPERIOR.

AGATE BAY, MINNESOTA.—This is a small indentation in the north shore of the lake, and though it has ample depth of water it is not protected on the southwest or from the reverse swells of the more dangerous storms of the northeast. The little security it afforded, however, was sufficient to warrant the construction of extensive docks for the handling of ore and other merchandise. The commerce soon grew out of all proportion to the size of the harbor, and for its security it was found necessary to supplement the natural protection by artificial means. Two piers projecting from either shore have accordingly been proposed, and though only one has been partly built the tranquillity of the harbor has been greatly increased by it.

ASHLAND HARBOR, WISCONSIN.—This harbor comprises a portion of Chequamagon bay. It was not thoroughly protected from the storm waves which rolled into its mouth, or from the waves generated by the bay itself, and a breakwater has been accordingly built of about 4,700 feet long, in order to give the requisite shelter. This length is hardly sufficient to afford protection to all the wharves of the city, and it is accordingly proposed to extend it 5,000 feet further.

DULUTH HARBOR, MINNESOTA.—The proposed plan to improve this harbor, which lies at the head of Lake Superior, is to cut a canal through the narrow strip of land or sand bar known as Minnesota point, thus uniting the waters of the bay and Lake Superior, to be followed by the construction of a breakwater parallel to this bar. But little has been done, however, on these projects in consequence of a disputed ownership of the land.

EAGLE HARBOR, MICHIGAN.—This harbor was improved not so much to further commerce as to provide a harbor of refuge. The improvements have consisted of cutting a channel of good depth through a ledge which obstructed the entrance to the bay.

GRAND MARAIS HARBOR, MINNESOTA.—On the north shore of Lake Superior there are very few localities where safe anchorage for vessels is to be found, and Grand Marais offers the only place of refuge for vessels during storms between Agate bay and Pigeon river. It is not yet a shipping port of any importance, though it is not distant from the rich deposits of iron ore of the Vermilion range. The improvements have consisted of dredging the harbor basin and the construction of a pier and breakwater.

GRAND MARAIS HARBOR OF REFUGE, MICHIGAN.—This harbor is accessible only for vessels drawing less than 9 feet, but once within the bay there is ample depth to float the largest vessels. As a harbor of refuge it is of pressing necessity to the shipping navigating the lakes in this vicinity, as the many wrecks in the neighborhood bear witness. The project for the improvement of this harbor has been the creation of a safe entrance to the bay for vessels of the largest size, formed by establishing crib piers sheltering a channel of 300 feet in width.

MARQUETTE HARBOR, MICHIGAN.—The improvement of this harbor has consisted in the erection of a breakwater projecting from the shore into the bay a distance of 2,000 feet. The area of commerce is so rapidly increasing, however, that the extension of the breakwater has become a necessity.

ONTONAGON HARBOR, MICHIGAN.—This harbor is formed by the mouth of the river of the same name, and it has fairly deep water, but its mouth is obstructed by a bar. The project of improvement was to build out parallel piers into the lake on either side of the river's mouth with the expectation that the confined current of the river would scour out a good channel through the bar. The expectation, however, has not been fully realized.

PORTAGE LAKE SHIP CANAL, MICHIGAN.—The appropriation of 1886 was for the examination of the Portage Lake and Lake Superior ship canals, with a view to accept the offer of the company to transfer all their rights to the United States for \$350,000. These canals being the water communication across Keweenaw point, Lake Superior, from Keweenaw bay to Lake Superior, in the state of Michigan. The appropriation of 1890 was for the purchase of these canals.

ST. MARYS RIVER AND ST. MARYS FALLS CANAL, MICHIGAN.—The improvement here consists of two parts: first, that of obtaining a 16-foot navigation as an approach to the canal, and second, the construction of the canal itself, about a mile in length, which overcomes by its lockage system a difference of level between lakes Superior and Huron of about 18 feet. So enormous has traffic grown over this route that the old locks have been replaced by a single one 515 feet long and 80 feet wide, which in its turn is to be replaced by a new one 800 feet long and 100 feet wide.

SUPERIOR AND ST. LOUIS BAYS, WISCONSIN.—The natural channel connecting these 2 bays with Lake Superior is at the southeastern extremity of Minnesota point, referred to in the paragraph concerning Duluth. Channels have been dredged through the bays to this outlet, which is protected by crib piers having an aggregate length of 5,650 feet.

LAKES HURON AND ST. CLAIR.

ALPENA HARBOR, THUNDER BAY, MICHIGAN.—The important and rapidly growing city of Alpena is situated at the mouth of Thunder Bay river, from which prior to the commencement of the government improvements there was a navigable channel into the bay of 12 feet depth and variable width. This has been improved to a channel of good navigable width and of 14 feet uniform depth.

AU SABLE RIVER AND HARBOR, MICHIGAN.—Before the beginning of improvements the mouth of Au Sable river was 150 feet wide, with a depth of 5 feet over the bar. The project for the improvement of the harbor has been to obtain a channel between the lake and the harbor of not less than 10 feet in depth and 100 feet in width.

BELLE RIVER, MICHIGAN.—The projects of improvement here have been to construct an ice harbor of refuge and the formation of a channel from the mouth of the river to the lake.

BLACK RIVER, MICHIGAN empties into St. Clair river at Port Huron, Michigan. At and below its mouth, extending beyond the middle of St. Clair river, there is a bar, and the improvement has been the dredging of a channel through this obstruction.

CHEBOYGAN HARBOR, MICHIGAN.—Prior to undertaking any improvement at this harbor only 7 feet of water could be carried across the bar at the mouth of the river, and the project of government improvement has been the formation of a channel 200 feet wide and 14 feet deep.

CLINTON RIVER AND HARBOR, MICHIGAN.—In 1870 the channel over the bar at the entrance to the river afforded a depth of only 3.5 feet, while the depth of the river for some distance above was 10 feet, and the government improvement has consisted of securing a navigable depth of 8 feet through the bar.

DETROIT RIVER, MICHIGAN.—Originally the channel at the entrance to Detroit river could not be depended upon for more than 18 feet of water, the ordinary depth being much affected by the direction of the wind. The government project of improvement has consisted of securing and maintaining a channel 400 feet wide and 20 feet deep.

HARBOR OF REFUGE AT SAND BEACH, MICHIGAN.—Before 1876, vessels when caught in heavy weather near the dangerous Pointe Aux Barques (the southern headland of the mouth of Saginaw bay) were compelled to run a distance of 60 miles and find a refuge in St. Clair river, whence, after the subsidence of the storm, those upward bound had to work their way back again. The project of improvement is for the construction of a harbor of refuge at Sand beach.

ST. CLAIR RIVER FLATS AND CANAL, MICHIGAN.—Before the construction of the canal the St. Clair river emptied into Lake St. Clair through 7 principal mouths or passes, that ordinarily used by vessels being known as the south channel, having a minimum depth of a little less than 11 feet. The St. Clair Flats canal was projected in 1866, with a view to obtaining a straight channel 13 feet deep and 330 feet wide across the flats east of the mouth of this south channel, the work being finished in 1871. The canal is bounded on each side by a dike 7,221 feet long, or an aggregate of 14,442 feet. In 1873 the channel was deepened to 16 feet by dredging for a width of 200 feet, the width being thus limited by the fact that the slope of the dikes did not admit of dredging to 16 feet for the full width of 300 feet. The present project of improvement is to protect the face of the dikes in such a way that the full width of the channel may be dredged to a uniform depth of 20 feet.

SAGINAW RIVER, MICHIGAN.—Before any improvements were made the entrance to this river was obstructed by a bar about a mile from the shore; and thence to the head of the river, a distance of about 16 miles, the channel was obstructed by a number of other bars. The project of improvement was to dredge out a channel which would have a uniform depth of 10 feet.

SEBEWAING HARBOR, MICHIGAN lies at the mouth of the river of the same name, and the improvements have consisted of the formation and protection of a navigable channel from it into Saginaw bay.

LAKE MICHIGAN.

AHNAPEE HARBOR, WISCONSIN, is a small artificial harbor constructed for local purposes in the mouth of Ahnapee river, and has been formed by the usual process of dredging out a channel and the erection of protecting piers.

BLACK LAKE HARBOR, MICHIGAN, was to have been formed by the completion of a protected channel connecting it with Lake Michigan, but no adequate appropriations for the purpose have been secured. It has a length of 5 miles, an average width of about half a mile, and a navigable depth from end to end of only 4 fathoms. The town of Holland, a thriving place with a population of 3,945, is built at the head of the lake.

CALUMET HARBOR AND RIVER, ILLINOIS.—The object of this improvement was to provide a deep entrance to Calumet river and the port of South Chicago, in order both to increase the commercial facilities of that place and to give relief to Chicago itself.

CEDAR RIVER (GREEN BAY), MICHIGAN.—The harbor of Cedar river is located in the mouth of the river itself, and the improvement of the locality has been effected by dredging out and protecting a navigable channel from the harbor into Green bay.

CHARLEVOIX HARBOR, MICHIGAN, lying between Grand and Little Traverse bays, is formed by Round lake, a picturesque body of water about half a mile long and a quarter of a mile wide, upon the banks of which the town is built. Adjoining it on the land side is Pine lake, and the official project of improvement provides for a navigable channel of good dimensions from Lake Michigan into Round lake and thence into Pine lake.

CHICAGO HARBOR, ILLINOIS.—The improvements of Chicago harbor have consisted, first, of the formation of the outer harbor or basin by including a portion of Lake Michigan just south of and adjoining the entrance to Chicago river, for the purpose of increasing the harbor facilities of the port and to give relief to the overcrowded river, and, second, the construction of an exterior breakwater to shelter the entrance to Chicago river and the outer harbor from northerly storms, and to form a sheltered area or harbor of refuge at the southern end of Lake Michigan. A subsidiary project has been the protection of the entrance to Chicago river by piers.

FOX RIVER (MOUTH OF), WISCONSIN.—This river empties into Green bay. The improvements form a part of the extensive project mentioned under the head of Green Bay harbor, Wisconsin.

FRANKFORT HARBOR, MICHIGAN, is really the little Lake Aux Bees Scies, lying south of Point Betsey, one of the important headlands on the east coast. Separating the little lake from the big one lies a sand spit, and the project of improvement has been to cut a channel through this obstruction.

GRAND HAVEN HARBOR, MICHIGAN, is both a harbor of local importance and of special status as a harbor of refuge for general commerce. The improvements have been the confinement of the volume of water flowing out of Grand river, thus providing an entrance of good width and depth.

GRAND RIVER, MICHIGAN.—The projected work here is that of improving the navigation of the river from Grand Rapids to its mouth at Grand Haven.

GREEN BAY HARBOR, WISCONSIN.—The improvements of Green bay, which lies at the mouth of Fox river, form a part of the original and much more extensive project which was to secure a cheap route of transportation from Mississippi river to the Great Lakes, and also to the Atlantic seaboard via Wisconsin river, Lake Winnebago, Neenah river, Fox river, and Green bay. All the items of appropriation which are set down for these various localities may be considered as having been expended in the survey for or the furtherance of this comprehensive project.

KENOSHA HARBOR, WISCONSIN, is situated at the mouth of Pike creek, and the project of improvement is the usual one of the formation and protection of a navigable channel between the harbor and Lake Michigan.

KEWANEE HARBOR, WISCONSIN, is situated at the mouth of Kewanee river, the improvements being of that character which have been already once or twice described.

LAKE WINNEBAGO, WISCONSIN.—The improvements for this lake form a part of the extensive project mentioned under the head of Green Bay harbor, Wisconsin.

LA PLAISANCE BAY, MICHIGAN.—The nineteen thousand and odd dollars set down as the appropriations for the improvement of this place were expended from 1826 to 1836, and were used to form and protect a safe entrance to the bay. The bay is of no present importance.

LUDINGTON HARBOR, MICHIGAN.—Ludington is built about the lower end of Pere Marquette lake, which is 9 or 10 miles long and half a mile in average width. A harbor of refuge has been established in the construction of protecting piers from Lake Michigan to deep water in the inner lake.

MANISTEE HARBOR, MICHIGAN, is on Manistee lake, and the improvement has consisted of enlarging and protecting the channel between it and Lake Michigan.

MANISTIQUE HARBOR, MICHIGAN.—The improvement here has been of that kind so often described, to secure and maintain a navigable channel from Lake Michigan to the mouth of Manistique river where the harbor of Manistique is situated.

MANITOWOC HARBOR, WISCONSIN.—A similar project of improvement.

MENOMINEE HARBOR, WISCONSIN.—A similar project of improvement.

MICHIGAN CITY, INDIANA.—The appropriation acts make a distinction between the outer harbor and the inner harbor, separate provision being made for each. The inner harbor, where all the shipping business is done, and which in fact furnishes all the harbor facilities that exist, consists of Trail creek, which winds through the town and which has been dredged landward for a distance of nearly 1.5 miles from the mouth, where piers on each side 100 feet apart projecting into the lake protect the entrance. The outer harbor, so called, consists of several works constructed at different dates and designed for the protection of the general lake commerce, in view of the great development of the shipping industries and the exposed location of the harbor at the head of the lake.

MILWAUKEE BAY AND HARBOR, WISCONSIN.—So far as the bay is concerned the project of improvement has been that of securing anchorage for vessels engaged in the general commerce of the lakes by inclosing its northern section within a breakwater, while the improvement of Milwaukee harbor has been that of gaining and maintaining a navigable channel from Lake Michigan into Milwaukee river, which is really the inner harbor of Milwaukee.

MUSKEGON HARBOR, MICHIGAN.—Muskegon is the principal coast city on the east shore of the lake and the leading one in population and products. It is situated on Lake Muskegon, a body of water about 5 miles long and 1.5 miles in width, into which Muskegon river flows and thence to Lake Michigan through a natural channel maintained by an overflow. The official project had in view the extension of piers and revetments to such a distance into Lake Michigan as to secure a 15-foot navigation, and this result has approximately been attained, although additional development is needed to the works to counteract the formation of the bar outside the entrance. Muskegon is claimed by local authorities to be the largest lumber manufacturing town in the United States, its annual products being 600,000,000 feet of lumber, 500,000,000 shingles, and 175,000,000 lath.

NEW BUFFALO HARBOR, MICHIGAN.—The improvements of this harbor, which lies just above the Indiana state line, were all made between 1852 and 1872, and were of the usual character belonging to lake harbors.

OCONTO HARBOR, WISCONSIN, lies at the mouth of Oconto river, which empties into Green bay, and the project of improvement has been to secure a navigable channel from Green bay up Oconto river to the city.

PENSAUKEE HARBOR, WISCONSIN.—The conditions here are so similar to those of Oconto that they need not be detailed.

PENTWATER HARBOR, MICHIGAN.—The town of Pentwater is built at the lower end of Pentwater lake, which is about 2.5 miles long and half a mile wide. The official project connects the inner lake with Lake Michigan by a 12-foot channel protected by piers and revetments 150 feet apart. As in nearly all similar cases, the full depth has not been reliably secured or maintained, the wave action in Lake Michigan tending to the deposit of sand between the piers, while the piers themselves, from their comparatively open character, permit the wash and drift of sand through them from the beaches.

PETOSKEY HARBOR, MICHIGAN.—Petoskey is a small village of 2,872 people, occupying a picturesque site on the bluffs overlooking Little Traverse bay, and near its head. The bluffs descend almost vertically to the narrow gravel beach of the bay, which here is fully exposed to the winds from the north and northeast. The present and prospective business of the place is small, and it is chiefly noted as a popular summer resort and for its fine specimens of agate, while, being at the terminus of an important railroad, it is a point of departure to numerous like resorts in the neighborhood of the straits of Mackinaw. During high winds from the north and west these vessels find it difficult to make a landing at the one small dock of Petoskey, and at times find it impossible to do so, when they seek shelter in the commodious natural harbor 3 miles across the bay. This harbor, known as Harbor Springs, is one of the harbors of refuge on the lakes, and therefore the project of building a harbor of refuge at Petoskey has been adversely reported on and the construction of a breakwater only has been recommended.

PORT WASHINGTON, WISCONSIN, consists of two small interior and connected basins, and the object of the improvement has been to secure a navigable channel entrance from Lake Michigan by parallel piers extending from the shore line to 10 feet of water in the lake.

PORTAGE LAKE HARBOR OF REFUGE, MICHIGAN, is a considerable body of water, 3.5 miles long by 1 mile in width, situated nearly midway of the 55 miles of concave coast between Point Betsey and Grande Pointe Au Sable. There is no harbor south of Frankfort in the length of this stretch except the Manistee entrance, which has neither the width nor depth adequate to make it available as a harbor of refuge for general commerce, and

many disasters to shipping have occurred. For this reason the official project for Portage lake, under which appropriations have been made since 1879, provided for the construction of a passage through the narrow beach separating Portage lake from Lake Michigan, with a width of 400 feet and a depth of 18 feet, dimensions which are the same as at Grand Haven and which would render the harbor suitable for all lake vessels needing shelter.

RACINE HARBOR, WISCONSIN.—Both the city and harbor of Racine are situated at the mouth of Root river, and the object of the improvements has been the construction and maintenance of a channel 18 feet deep and 160 feet wide from the harbor into the lake.

ST. JOSEPH HARBOR AND RIVER, MICHIGAN.—Where St. Joseph and Pawpaw rivers unite the water area extends into a basin about half a mile in length by one-sixth of a mile in width, which is designated St. Joseph harbor, and as such has been under improvement by the United States since 1836, partly for the benefit of local commerce, but more especially as a harbor of refuge for general commerce. The official project has provided for an entrance with a depth of 16 feet, protected by piers on each side, with an average width of 270 feet.

SAUGATUCK HARBOR, MICHIGAN, is formed at the mouth of Kalamazoo river, and the improvements have been of the usual nature described in speaking of those other localities where the necessity has existed for maintaining a navigable channel.

SHEBOYGAN HARBOR, WISCONSIN, is formed at the mouth of Sheboygan river, and the improvements are those of forming and maintaining a navigable channel of good dimensions from the lake to the harbor.

SOUTH HAVEN HARBOR, MICHIGAN.—The official project for this harbor, which is the mouth of Black river where the town of South Haven is situated, calls for a 12-foot navigable channel with an extreme width of 108 feet.

STURGEON BAY, WISCONSIN.—The object of the government improvements here has been to form a harbor of refuge inclosing the Lake Michigan entrance to Sturgeon Bay and Lake Michigan ship canal, and also to afford a safe entrance to the canal in rough weather.

TWO RIVERS HARBOR, WISCONSIN, is situated at the mouth of the Twin rivers, and the improvements have been those of the usual kind described as being necessary under similar conditions.

WAUKEGAN HARBOR, ILLINOIS.—The character of the improvement of this harbor is somewhat different from that of other points on the Great Lakes. Most of the improvements have consisted in deepening the mouths of streams emptying into the lake, but at Waukegan there is only a creek emptying into the lake, and it is of no importance for harbor purposes. The project of improvement here, therefore, has been to construct an exterior basin of sufficient capacity to meet the requirements of local trade by inclosing a portion of Lake Michigan within sheltering piers.

WHITE RIVER HARBOR, MICHIGAN.—White lake is about 4.5 miles long by three-fourths of a mile wide, and the towns of Whitehall and Montague are built on its upper or eastern end, where White river enters the lake and discharges through it into Lake Michigan. The official project connects the 2 lakes by a 12-foot channel between piers and revetments 200 feet apart.

LAKE ERIE.

ASHTABULA HARBOR, OHIO.—The original project for the improvement of this harbor was adopted in 1826, at which time there was a depth of only 2 feet of water on the bar. As the result of this improvement there is now a protected channel of 17 feet between the harbor and the lake.

BLACK RIVER HARBOR, OHIO.—Black river, Ohio, is formed by two branches nearly equal in size which unite about 8 miles from the town of Lorain, where the river empties into Lake Erie. The project of improvement, commenced in 1828 and maintained from time to time as the demands of commerce called for, provides for a protected channel between the harbor and the lake 16 feet in depth.

BUFFALO HARBOR, NEW YORK.—Up to 1868 Buffalo harbor and Buffalo creek may be considered to have been synonymous terms. The earliest record of which there is any trace as to the condition of this harbor was in 1818, at which time the mouth of the creek was most of the year closed by a gravel bar which was cut out by freshets and then closed up again. From that time a number of improvements have been carried out until to-day the present works consist of (1) a pier on the north side of Buffalo creek, known as the North pier; (2) a pier on the south side of the creek, known as the South or Lighthouse pier; (3) a detached breakwater, to be when finished 7,800 feet long, with a shore arm, to be when finished 4,100 feet long; (4) a pile pier, built for a sand catch and eventually to form a part of the shore arm of the breakwater; (5) a sea wall of masonry to protect the shore from the waves of the lake.

CATTARAUGUS CREEK, NEW YORK.—The improvements here, all of which were effected between the years 1826 and 1836, were simply for the improvement of the harbor, which is really the mouth of the creek.

CLEVELAND HARBOR, OHIO, is situated at the mouth of Cuyahoga river. The improvements, which are the outcome of many projects, have resulted in a protected channel of good depth, 200 feet wide, running out to the depth of 16 feet in the lake, and the formation of a harbor of refuge.

CONNEAUT HARBOR, OHIO, which lies at the mouth of the creek of the same name, has been improved by the removal of a bar which obstructed navigation and by the formation of a protected channel.

CUNNINGHAM CREEK, OHIO.—The work of improvement at this place has been of the same nature as that described for Conneaut harbor.

DUNKIRK HARBOR, NEW YORK.—The improvement of this harbor was commenced in 1827, and the original project was much the same as that of the existing improvements, which comprise the formation of an artificial harbor in front of the city.

ERIE HARBOR, PENNSYLVANIA.—The object of the improvement here has been to protect the harbor from severe winds from the east and northeast, and to obtain and maintain a channel between deep water in the harbor and the open lake 16 feet deep at low water and of good navigable width.

GRAND RIVER HARBOR (FAIRPORT), OHIO, which is officially known as Fairport, has been improved by the construction and maintenance of a protected channel 200 feet wide through a sand bar. Fairport is now the third harbor on the list of Lake Erie harbors in the amount of ore received, and owing to the increased size of vessels at present in use on the lake in this traffic an increased depth to 18 feet is stated to be necessary.

HURON RIVER AND HARBOR, OHIO.—The improvements here are precisely of the same character as those that have been effected at all other localities where the entrance to the harbor has been obstructed by a bar.

MONROE HARBOR, MICHIGAN, is situated at the extreme western end of Lake Erie, about 1.5 miles west of the mouth of Raisin river, and about 3.5 miles from the town of Monroe. The improvements were commenced here in 1835, when Raisin river was considered an important stream and Monroe a place of increasing commerce. The work done has consisted in straightening the river, making direct connection with Lake Erie through a sand peninsula by a channel 4,000 feet long and 100 feet wide.

PORT CLINTON, OHIO, is situated at the mouth of Portage river, and the improvements have consisted of the same work of making and maintaining a channel which has been so frequently described.

PORTLAND HARBOR, NEW YORK.—The improvements here were all carried out from 1836 to 1844.

ROCKY RIVER HARBOR, OHIO.—The improvements of Rocky River harbor have consisted of the formation and protection of a navigable channel from the mouth of the harbor to deep water in the lake.

ROUGE RIVER, MICHIGAN, is somewhat remarkable for the depth of the water in its lower reaches, a channel of 11 feet over the bar at its mouth being in existence, and the improvements have consisted in dredging out the stream up to its junction with Detroit river.

SANDUSKY CITY HARBOR AND SANDUSKY RIVER, OHIO.—Sandusky bay empties into or rather opens on Lake Erie about 40 miles from its western extremity. It has a natural harbor containing an area of about 22.5 miles, a depth of from 8 to 12 feet, and is protected on the north and northwest by a long, narrow peninsula, and on the northeast by Cedar point. The project of improvement has included the construction of a channel 200 feet wide and 15 feet deep through the outer bar and up to the city front. The Sandusky river empties into Sandusky bay about 14.5 miles from Cedar point, and the improvement of the river has been the dredging out of a 9-foot channel from the city of Fremont, the head of navigation, 17 miles from the mouth of the river, to a 9-foot depth in the bay.

TOLEDO HARBOR, OHIO.—The city of Toledo is situated at the mouth of Maumee river, which empties into Maumee bay about 7 miles from the deep water of Lake Erie. The improvements here have consisted mainly of the construction and maintenance of a straight channel from the mouth of the river to deep water in Lake Erie.

VERMILION RIVER, OHIO.—Vermilion river, the mouth of which constitutes Vermilion harbor, empties into Lake Erie, about 20 miles to the east of Sandusky city, and the improvements have resulted in the construction of a channel of good depth between the harbor and lake.

LAKE ONTARIO.

BLACK RIVER (SACKETTS HARBOR), NEW YORK.—The improvements here may be said to be for the mouth of this river, which empties into Sacketts harbor.

CHARLOTTE HARBOR, NEW YORK.—The improvements here have resulted in securing a navigable channel at the mouth of Genesee river.

GREAT SODUS BAY, NEW YORK.—The improvements here have resulted in securing a navigable channel of 15 feet in depth from Lake Ontario to the bay.

LITTLE SODUS BAY, NEW YORK.—The plan of improvement here has been the same as that described at Great Sodus bay.

OAK ORCHARD HARBOR, NEW YORK.—A protected channel 200 feet wide and 12 feet deep has been secured as the result of the government improvements here.

OLCOTT HARBOR, NEW YORK.—The improvements here have resulted in obtaining a channel 11 feet deep between Lake Ontario and the deep water in Eighteen Mile creek, where Olcott harbor lies.

OSWEGO HARBOR, NEW YORK.—The object of the improvements here has been to provide a basin of sufficient size and depth for the needs of commerce at the mouth of Oswego river and to secure and maintain a navigable channel into said basin and river from the lake.

PORT ONTARIO HARBOR, NEW YORK.—The improvements at this harbor, which lies at the mouth of Salmon river, were of little importance, and were all effected between the years 1836 and 1844.

PULTNEYVILLE HARBOR, NEW YORK.—The improvements here differ somewhat from those so often described in that they had for their object the formation of a harbor by protecting breakwaters.

SACKETTS HARBOR, NEW YORK.—The improvements here may be said to embrace both those which have directly affected the harbor and those which have been applied to Black river, which empties into the harbor. The harbor improvements have consisted of dredging out a large area to a good depth and the checking of drifting material, while the improvements of the river have consisted of deepening and maintaining a navigable channel.

SANDY CREEK, NEW YORK.—The appropriations made for this place were for the survey of its mouth with a view to constructing a harbor at this place. The project, however, was not carried into effect.

WILSON HARBOR, NEW YORK, is situated at the mouth of Twelve Mile creek, and the object of the improvement has been to secure a 12-foot channel between it and Lake Ontario.

ST. LAWRENCE RIVER.

GRASS RIVER, NEW YORK.—The project of the improvement here contemplated the formation of a channel from St. Lawrence river to Massena village, a distance of 7 miles, with a minimum width of 40 feet and a least depth of about 4 feet.

OGDENSBURG HARBOR, NEW YORK.—When operations were commenced at this harbor in 1868 the channel afforded depths of 5 to 12 feet only, and now there are 3 channels from deep water in St. Lawrence river to the nearest docks or wharves, in which water from 15 to 16 feet deep is afforded, and a channel from 12 to 15 feet deep has been made along the city front.

SISTER ISLANDS, NEW YORK.—This appropriation was made by the act of 1890 for the improvement of the shoal between Sister islands and the Cross-over light.

WADDINGTON HARBOR, NEW YORK.—The appropriations for the improvement of Waddington harbor closed in 1881, by which time the project of opening a channel through a bar at the head of the river which forms Waddington harbor was completed.

NIAGARA RIVER.

BLACK ROCK HARBOR, NEW YORK.—The improvements of Black Rock, which lies at the outlet of Lake Erie, were conducted between the years 1829 and 1834, and consisted of the dredging out of a navigable channel of good dimensions.

TONAWANDA HARBOR, NEW YORK.—The improvement here has embraced the formation of a navigable channel from the entrance of Niagara river at Lake Erie to the north end of Tonawanda river, the channel to be 400 feet wide and 18 feet in depth.

INCREASE AND IMPROVEMENT.

From the figures given it will have been seen that the total cost of all the harbor and river improvements up to the close of 1890 amounted to \$40,912,975, but, large as this sum is, it has been contended that the saving effected by the transportation through the lake marine more than pays back this amount to the country in a single season. The calculation made in support of this argument runs somewhat as follows:

According to the computation made by Mr. Keep the average distance over which freight was carried during 1889 was 566 miles. It will not, therefore, be going far outside the probabilities to assume that this distance was the average also for 1890, and on that assumption the total ton-mileage for 1890 was 18,849,681,384 ton-miles, while that for 1889 was 15,542,507,160.

According to the various reports of the principal transportation agencies freight rates on these waters during the year 1890 varied from 3.5 mills per ton-mile to 0.3 mill per ton-mile, the former rate being received on certain high class "package freight" and the latter being the rate on coal over a certain route. The great bulk of the "gross freight" was carried at less than 1 mill per ton-mile, and it is probable that the average rate on all freight was about 1.1 mills per ton-mile. Assuming, however, that it was as high as 1.2 mills, the cost of the total water transportation for 1890 was \$22,619,618.

An instructive lesson in comparative statistics is gathered from the fact that the total ton mileage of all the railroads in the United States for the year ending June 30, 1890, was 76,207,047,298 ton-miles, so that the ton-mileage of the Great Lakes and river St. Lawrence for the same year being, as has been seen, 18,849,681,384 ton-miles, the lake ton-mileage was 24.73 per cent of the ton-mileage of all the railroads of the United States. In

other words, it would have required 24.73 per cent of the entire railway freight equipment of the railroads in the United States to have transported by rail the cargoes carried by lake vessels in 1890, and this, it must be remembered, is based on the calculation that each of the transportation agencies was employed during the same period of time, while as a matter of fact the railroads ran for 12 months and the lake season extended over but 234 days, or less than 8 months.

REDUCTION IN FREIGHT RATES.

The question of reduction in freight rates is indeed a most interesting one, and it is especially so in the case of grain. In 1859, for instance, it cost an average of 15.75 cents to carry a bushel of corn from Chicago to Buffalo by lake. In 1871 the rate had fallen to 7.50 cents per bushel, while in 1890 it only cost 1.88 cents per bushel. In 1867 it cost an average of \$4.25 to carry a ton of iron from Escanaba to Erie, in 1870 it cost \$2.50 for the same service, while in 1890 the rate was as low at one time as \$0.55, with an average of \$0.82 per ton.

A valuable record of the most representative freight rates has been prepared by Mr. W. A. Livingstone, and will be found embodied in the subjoined tables. The titles of these tables are, generally speaking, sufficiently indicative of the matter presented, but one or two explanations are needed, which can be better given in this prefatory manner than in the form of footnotes. It should be understood, for example, that the rate of any previous date held good until the succeeding date when the new rate was made; that the ore rates in the first table include the unloading of the ore, paid by the vessel, and are the rates per gross ton, and that the averages given in all cases are the calculated averages of all the daily rates, and are not the average rates at which the freight was carried:

ORE RATES FROM THE PORTS NAMED TO LAKE ERIE PORTS.

1890

DATES.	Escanaba.	Marquette.	Ashland.	DATES.	Escanaba.	Marquette.	Ashland.
April 10	\$1.00	\$1.25	\$1.35	August 15	\$0.85	\$1.00	\$1.00
April 15	0.90	1.20	1.30	October 1	0.85	1.00	1.10
May 5	0.90	1.15	1.25	October 15	0.90	1.00	1.10
May 20	0.85	1.15	1.20	November 4	1.00	1.10	1.15
May 29	0.85	1.10	1.20	November 12	1.15		1.30
July 20	0.85	1.10	1.15	November 25	1.15		1.70
July 24	0.85	1.10	1.10				
July 30	0.85	1.05	1.10	Average daily rates	0.890	1.072	1.156
August 9	0.85	1.05	1.05	Season contract rates	1.100	1.250	1.350

1891

May 7	\$0.70		\$0.90	August 29	\$0.85	\$1.00	\$1.10
May 11	0.65		0.90	September 1	0.90	1.05	1.15
May 20	0.60	\$0.80	0.90	September 4	0.95	1.10	1.15
May 25	0.55	0.80	0.90	September 5	1.00	1.10	1.15
June 10	0.55	0.80	0.80	September 22	1.05	1.20	1.30
June 22	0.60	0.80	0.80	September 26	1.00	1.20	1.30
June 23	0.65	0.80	0.80	September 29	0.95	1.15	1.30
June 24	0.65	0.90	0.90	October 1	0.95	1.10	1.30
July 7	0.65	0.90	1.00	October 3	0.90		
July 14	0.70	0.95	1.00	October 5	0.85	1.00	1.20
July 20	0.75	1.00		October 7	0.80	1.00	1.10
July 23	0.80	1.00		October 10	0.75	0.95	1.00
July 24	0.85	0.95	1.05	October 12	0.75	0.85	0.95
July 30	0.85	1.05	1.10	October 14	0.75	0.95	1.00
July 31	0.90	1.10	1.20	October 22	0.80	1.00	1.10
August 3	0.95	1.15	1.25	October 30	0.90	1.15	1.40
August 4	1.10	1.25	1.35	November 4	1.00	1.25	1.50
August 6	1.00	1.10	1.20	November 6	1.20	1.30	1.50
August 8	0.95	1.10	1.15	November 18	1.30		
August 12	0.90	1.10	1.10	November 19	1.35		
August 14	0.95	1.10	1.15				
August 15	1.00	1.15	1.15	Average daily rates	0.825	1.004	1.070
August 17	0.90	1.10	1.15	Season contracts made on June 4	0.650	0.900	0.900
August 20	0.90	1.05	1.15				

TRANSPORTATION ON THE GREAT LAKES.

285

RATE OF FREIGHT, PER BUSHEL, ON CORN FROM CHICAGO TO BUFFALO.

1890

	CENTS.		CENTS.		CENTS.
March 7.....	2.875	May 27.....	1.500	September 5.....	1.500
March 14.....	3.250	June 5.....	1.750	September 12.....	1.750
March 25.....	3.500	June 10.....	2.000	September 29.....	2.000
April 3.....	3.250	June 27.....	2.250	October 14.....	1.875
April 5.....	2.875	June 28.....	2.125	October 16.....	1.500
April 11.....	2.500	July 8.....	2.000	October 22.....	1.250
April 14.....	2.250	July 23.....	2.875	October 25.....	1.500
April 15.....	2.000	July 24.....	1.500	November 6.....	1.250
April 25.....	1.750	July 25.....	1.750	November 18.....	1.500
April 26.....	1.500	July 30.....	1.500	November 19.....	1.750
April 28.....	1.250	July 31.....	1.000	November 20.....	1.500
April 30.....	1.500	August 1.....	1.250	November 21.....	2.000
May 2.....	1.750	August 9.....	1.375	November 28.....	3.000
May 3.....	1.500	August 16.....	1.250	December 3.....	3.000
May 20.....	1.250				

1891

	CENTS.		CENTS.		CENTS.
April 10.....	2.000	August 7.....	2.750	October 5.....	1.750
April 17.....	1.750	August 10.....	2.500	October 23.....	2.000
May 2.....	1.500	August 11.....	2.250	October 26.....	2.250
May 8.....	1.250	August 14.....	2.500	October 30.....	2.500
May 9.....	1.125	September 2.....	2.750	October 31.....	2.750
May 13.....	1.000	September 4.....	3.000	November 4.....	3.250
June 29.....	1.250	September 10.....	3.250	November 5.....	3.750
July 7.....	1.375	September 12.....	3.000	November 6.....	4.000
July 13.....	1.500	September 15.....	3.250	November 12.....	3.750
July 14.....	1.750	September 25.....	3.000	November 19.....	4.500
July 28.....	2.250	September 28.....	2.750	November 21.....	4.250
July 30.....	2.750	September 30.....	2.500	November 28.....	4.500
July 31.....	3.000	October 3.....	2.250	December 2.....	4.500

AVERAGES OF DAILY RATES, PER BUSHEL, FOR 6 YEARS.

	CENTS.		CENTS.		CENTS.
1886.....	3.40	1888.....	2.50	1890.....	1.88
1887.....	3.90	1889.....	2.25	1891.....	2.13

STATISTICS OF TRANSPORTATION.

RATE OF FREIGHT, PER BUSHEL, ON WHEAT FROM DULUTH TO BUFFALO.

1890

	CENTS.		CENTS.		CENTS.
March 28	3.750	June 13	2.250	September 15	2.500
April 11	3.500	June 14	2.000	September 22	2.750
April 23	3.250	June 21	2.500	November 15	3.000
May 7	3.000	June 24	2.750	November 22	4.000
May 10	2.875	June 27	2.500	November 24	4.500
May 13	3.000	July 8	2.750	November 26	5.000
June 3	2.750	July 10	2.500	November 28	5.500
June 5	2.500	July 30	2.250		

1891

	CENTS.		CENTS.		CENTS.
March 16	2.875	August 1	3.000	October 26	4.000
March 18	2.750	August 5	3.500	November 2	4.250
March 24	2.500	August 6	3.250	November 3	5.000
April 22	2.250	September 8	3.500	November 5	5.250
May 9	2.000	September 10	3.750	November 6	6.000
May 16	1.750	September 15	4.000	November 7	7.000
May 18	1.500	September 28	3.500	November 9	7.500
May 20	1.250	October 6	3.250	November 19	8.000
June 9	1.750	October 8	3.000	November 20	8.500
June 12	1.500	October 10	2.500	November 21	9.250
June 13	2.000	October 19	2.750	November 23	9.500
July 7	2.250	October 20	3.000	November 25	9.250
July 13	2.500	October 21	3.500	November 28	9.250

RATES, PER NET TON, FOR CARRYING COAL FROM BUFFALO TO THE PORTS NAMED.

1890				1891			
DATES.	Duluth.	Milwaukee.	Chicago.	DATES.	Duluth.	Milwaukee.	Chicago.
April 16	\$0.40	\$0.40	\$0.40	April 14	\$0.40	\$0.50	\$0.60
April 21	0.35	0.50	0.50	May 11	0.40	0.60	0.60
April 30	0.35	0.50	0.60	July 18	0.40	0.50	0.50
May 5	0.40	0.50	0.60	July 20	0.30	0.50	0.50
May 21	0.35	0.50	0.60	August 12	0.40	0.50	0.50
June 13	0.40	0.50	0.60	August 28	0.30	0.50	0.50
September 3	0.30	0.50	0.60	September 2	0.30	0.40	0.40
November 3	0.40	0.60	0.75	September 15	0.25	0.40	0.40
November 9	0.60	0.60	0.75	September 26	0.25	0.50	0.50
November 11	0.75	0.75	0.75	October 28	0.25	0.50	0.60
November 28	0.75	0.75	1.00	October 29	0.25	0.60	0.60
				November 10	0.10	0.60	0.60
				November 18	0.10	0.75	0.75
				November 28	0.10	1.00	0.75
Average rate	0.394	0.521	0.611	Average rate	0.318	0.545	0.557

GENERAL RESULTS.

In the progress of this text the history of transportation on the Great Lakes and river St. Lawrence has been traced from its early beginnings to the year 1890; the comparative statistics of the decade of 1880 and 1889, inclusive, have been treated with some fullness, and much space has been devoted to a review of the industry in its positive form of a report for the period covered by the Eleventh Census. The matter can therefore well be brought to the review standpoint by a consideration of the general results of the traffic, results which have a strong social and political as well as commercial bearing. The extraordinary growth of the country is certainly one of the most striking features in the history of the United States, and it is also certain that one of the pre-eminent factors in making this growth possible has been the rapid extension of the water transportation systems of the Mississippi valley and the lacustrine system. It will show a closer parallelism between the increase of the importance of lake traffic and that of population, if one considers the growth of population in the cities found either directly on the lake shore or situated within a 50-mile zone encircling the lakes. In the whole of the United States there are 448 cities and towns having a population of 8,000 and over, and of these 448 no less than 204 are found in the 8 states to which reference has been made, while within the zone which has been outlined there lie 57 of such cities. The population of the 448 large cities of the United States was 18,284,385 in 1890, that of the 204 cities in the 8 lake states was 10,137,747, while that of the 57 cities lying within the 50-mile zone was 3,184,357, which figures, together with those showing the increase per city for the census year 1880 over that of 1890, are shown in the following table:

TABLE V.—STATEMENT SHOWING THE POPULATION IN 1880 AND 1890 OF CITIES OF 8,000 INHABITANTS AND OVER, LOCATED WITHIN A RADIUS OF 50 MILES OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

LOCALITIES.	1890	1880	LOCALITIES.	1890	1880
Lake Superior.....	75,344	14,212	Lake Michigan—Continued.		
Ashland, Wisconsin.....	9,956		Muskegon, Michigan.....	22,702	11,262
Duluth, Minnesota.....	33,115	3,483	Oshkosh (Lake Winnebago), Wisconsin.....	22,836	15,748
Ishpeming, Michigan.....	11,197	6,039	Racine, Wisconsin.....	21,014	16,031
Marquette, Michigan.....	9,093	4,690	Sheboygan, Wisconsin.....	16,359	7,314
Superior, Wisconsin.....	11,983				
Lakes Huron and St. Clair.....	337,078	204,477	Lake Erie.....	822,318	509,142
Ann Arbor, Michigan.....	9,431	8,661	Adrian, Michigan.....	8,756	7,849
Alpena, Michigan.....	11,283	6,153	Akron, Ohio.....	27,001	16,512
Bay city, Michigan.....	27,839	20,693	Ashtabula, Ohio.....	8,338	4,445
Detroit, Michigan.....	205,876	116,340	Buffalo, New York.....	255,604	155,134
Flint, Michigan.....	9,803	8,400	Cleveland, Ohio.....	261,353	160,146
Port Huron, Michigan.....	13,543	8,883	Dunkirk, New York.....	9,416	7,248
Saginaw, Michigan.....	46,322	29,541	Erie, Pennsylvania.....	40,634	27,737
West Bay city, Michigan.....	12,981	6,397	Findlay, Ohio.....	18,553	4,633
Lake Michigan.....	1,622,462	790,945	Jamestown (Lake Chautauqua), New York.....	16,038	9,357
Appleton, Wisconsin.....	11,869	8,005	Mansfield, Ohio.....	13,473	9,859
Aurora, Illinois.....	19,688	11,873	Meadville, Pennsylvania.....	9,520	8,860
Chicago, Illinois.....	1,099,850	503,185	Sandusky, Ohio.....	18,471	15,838
Elgin, Illinois.....	17,823	8,787	Titusville, Pennsylvania.....	9,046	8,073
Fond du Lac (Lake Winnebago), Wisconsin.....	12,624	13,034	Toledo, Ohio.....	81,434	50,137
Green Bay, Wisconsin.....	9,069	7,464	Tiffin, Ohio.....	10,801	7,879
Grand Rapids, Michigan.....	60,278	32,016	Youngstown, Ohio.....	33,220	15,435
Joliet, Illinois.....	23,264	11,657			
Iron Mountain, Michigan.....	8,599		Lake Ontario and St. Lawrence river.....	327,155	230,552
Kankakee, Illinois.....	9,025	5,651	Anburn, New York.....	25,858	21,094
Kalamazoo, Michigan.....	17,853	11,937	Lockport, New York.....	16,038	13,522
Manistee, Michigan.....	12,812	6,930	Ogdensburg, New York.....	11,662	10,341
Marquette, Wisconsin.....	11,523	2,750	Osawego, New York.....	21,842	21,116
Menominee, Michigan.....	10,630	3,288	Rome, New York.....	14,991	12,194
Michigan, Indiana.....	19,776	7,366	Rochester, New York.....	133,896	89,306
Milwaukee, Wisconsin.....	204,468	115,587	Syracuse, New York.....	88,143	51,792
			Watertown, New York.....	14,725	10,697

Remarkable as has been the increase of this urban population, generally considered, the reader can not fail to note the extraordinary fact that 3 of these large cities, Ashland, Superior, and Iron Mountain, have sprung into existence during the decade 1880-1890, while Duluth's growth has been from so small a beginning to so large a result that it can almost be considered in the same category. This practical creation of 4 populous cities is mainly if not entirely due to the development in the production of iron ore in the Lake Superior and Lake Michigan districts. In this connection the figures in the following paragraph, which have been compiled from official returns, are at once pertinent and instructive.

In 1889 there were 592 iron-ore producing mines in the United States which reported to the bureau of statistics, of which 89 were in the Lake Superior district. The product of the 592 mines was 14,518,041 long tons of ore, which, at an average value of \$2.30 per ton, means a total value of \$33,351,978. The product of the Lake Superior district amounted to 6,693,568 tons, valued at \$16,641,429. The port of Escanaba does not appear in the preceding list of cities having a population of over 8,000, but it undoubtedly belongs to the list of those cities whose growth is due almost entirely to lake traffic in iron ore. From this port 3,364,067 tons of iron ore were shipped in 1889 and 4,171,210 tons in 1890. During the same year Bilbao, in Spain, shipped 4,272,918 tons, but as Bilbao is an open port for the whole year, its shipments were at the rate of 356,077 tons per month, while the lake port, being open but 10 months in the year, shipped at the rate of 417,121 tons per month, making Escanaba, therefore, the greatest ore port in the world.

LAKE LANDINGS AND DISTANCES.

As in the case of the report on the rivers of the Mississippi valley, this text can not be brought to a better conclusion than by giving a list of the principal trading points on the Great Lakes and St. Lawrence river, with the distances from port to port:

LAKE AND RIVER LANDINGS BETWEEN OGDENSBURG AND DULUTH (DISTANCES FROM OGDENSBURG).

	MILES.		MILES.		MILES.
Cape Vincent, Lake Ontario.....	68	Sand Beach, Lake Huron.....	615	Marquette, Lake Superior.....	997
Kingston, Lake Ontario (Canada)...	69	Goderich, Lake Huron (Canada)....	616	Green Bay, Lake Michigan.....	1,002
Oswego, Lake Ontario.....	115	Oscoda, Lake Huron.....	666	Sheboygan, Lake Michigan.....	1,017
Fair Haven, Lake Ontario.....	134	Tawas, Lake Huron.....	672	Copper Harbor, Lake Superior.....	1,027
Charlotte, Lake Ontario.....	158	Saginaw river, Lake Huron.....	700	Muskegon, Lake Michigan.....	1,043
Toronto, Lake Ontario (Canada)....	222	Alpena, Lake Huron.....	709	Grand Haven, Lake Michigan.....	1,045
Port Dalhousie, Lake Ontario (Canada).....	330	Cheboygan, Lake Huron.....	787	L'Anse, Lake Superior.....	1,054
Port Colborne, Lake Erie (Canada)...	256	Mackinac, Lake Huron.....	794	Houghton, Lake Superior.....	1,058
Buffalo, Lake Erie.....	276	Owen sound, Lake Huron (Canada)...	800	Milwaukee, Lake Michigan.....	1,062
Erie, Lake Erie.....	321	Collingwood, Lake Huron (Canada)...	818	St. Joseph, Lake Michigan.....	1,102
Ashtabula, Lake Erie.....	358	Midland, Lake Huron (Canada).....	827	Ontonagon, Lake Superior.....	1,109
Cleveland, Lake Erie.....	412	Sault Ste. Marie, Lake Superior.....	838	Chicago, Lake Michigan.....	1,132
Sandusky, Lake Erie.....	458	Traverse, Lake Michigan.....	897	Port Arthur, Lake Superior (Canada)...	1,108
Toledo, Lake Erie.....	491	Escanaba, Lake Michigan.....	935	Bayfield, Lake Superior.....	1,173
Detroit, Detroit river (Lake St. Clair)...	493	Manistee, Lake Michigan.....	950	Ashland, Lake Superior.....	1,186
Port Huron, St. Clair river (Lake Huron).....	553	Ludington, Lake Michigan.....	978	Duluth, Lake Superior.....	1,235
		Manitowoc, Lake Michigan.....	993		

LAKE AND RIVER LANDINGS BETWEEN BUFFALO AND OGDENSBURG (DISTANCES FROM BUFFALO).

Port Colborne, Lake Erie (Canada)...	20	Charlotte, Lake Ontario.....	127	Kingston, Lake Ontario (Canada)...	207
Toronto, Lake Ontario (Canada)....	77	Fair Haven, Lake Ontario.....	180	Cape Vincent, Lake Ontario.....	208
Port Dalhousie, Lake Ontario (Canada).....	97	Oswego, Lake Ontario.....	190	Ogdensburg, St. Lawrence river.....	276

LAKE AND RIVER LANDINGS BETWEEN BUFFALO AND DULUTH (DISTANCES FROM BUFFALO).

Erie, Lake Erie.....	80	Alpena, Lake Huron.....	471	Sheboygan, Lake Michigan.....	779
Ashtabula, Lake Erie.....	116	Cheboygan, Lake Huron.....	549	Copper Harbor, Lake Superior.....	789
Cleveland, Lake Erie.....	174	Mackinac, Lake Huron.....	556	Muskegon, Lake Michigan.....	805
Put in Bay, Lake Erie.....	215	Owen sound, Lake Huron (Canada)...	562	Grand Haven, Lake Michigan.....	807
Sandusky, Lake Erie.....	217	Collingwood, Lake Huron (Canada)...	580	L'Anse, Lake Superior.....	816
Toledo, Lake Erie.....	252	Midland, Lake Huron (Canada).....	589	Houghton, Lake Superior.....	820
Detroit, Detroit river (Lake St. Clair)...	255	Sault Ste. Marie, Lake Superior.....	600	Milwaukee, Lake Michigan.....	824
Port Huron, St. Clair river (Lake Huron).....	315	Traverse, Lake Michigan.....	658	St. Joseph, Lake Michigan.....	864
Sand Beach, Lake Huron.....	377	Escanaba, Lake Michigan.....	697	Port Arthur, Lake Superior (Canada)...	870
Goderich, Lake Huron (Canada).....	378	Manistee, Lake Michigan.....	712	Ontonagon, Lake Superior.....	871
Oscoda, Lake Huron.....	428	Ludington, Lake Michigan.....	739	Chicago, Lake Michigan.....	889
Tawas, Lake Huron.....	434	Manitowoc, Lake Michigan.....	755	Bayfield, Lake Superior.....	935
Saginaw river, Lake Huron.....	463	Marquette, Lake Superior.....	759	Ashland, Lake Superior.....	948
		Green Bay, Lake Michigan.....	764	Duluth, Lake Superior.....	997

LAKE AND RIVER LANDINGS BETWEEN CLEVELAND AND OGDENSBURG (DISTANCES FROM CLEVELAND).

Ashtabula, Lake Erie.....	56	Port Dalhousie, Lake Ontario (Canada)...	193	Oswego, Lake Ontario.....	326
Erie, Lake Erie.....	99	Toronto, Lake Ontario (Canada).....	212	Kingston, Lake Ontario (Canada)...	343
Port Colborne, Lake Erie (Canada)...	156	Charlotte, Lake Ontario.....	273	Cape Vincent, Lake Ontario.....	344
Buffalo, Lake Erie.....	174	Fair Haven, Lake Ontario.....	316	Ogdensburg, St. Lawrence river.....	412

LAKE AND RIVER LANDINGS BETWEEN CLEVELAND AND DULUTH (DISTANCES FROM CLEVELAND).

	MILES.		MILES.		MILES.
Sandusky, Lake Erie.....	56	Mackinac, Lake Huron.....	406	Copper Harbor, Lake Superior.....	639
Put in Bay, Lake Erie.....	64	Owen sound, Lake Huron (Canada) .	412	Muskegon, Lake Michigan.....	655
Toledo, Lake Erie.....	100	Collingwood, Lake Huron (Canada) .	430	Grand Haven, Lake Michigan.....	657
Detroit, Detroit river (Lake St. Clair)	105	Midland, Lake Huron (Canada).....	439	L'Anse, Lake Superior.....	666
Port Huron, St. Clair river (Lake Huron).....	165	Sault Ste. Marie, Lake Superior.....	450	Houghton, Lake Superior.....	670
Sand Beach, Lake Huron.....	227	Traverse, Lake Michigan.....	509	Milwaukee, Lake Michigan.....	674
Goderich, Lake Huron (Canada).....	228	Escanaba, Lake Michigan.....	547	St. Joseph, Lake Michigan.....	714
Oscoda, Lake Huron.....	278	Manistee, Lake Michigan.....	562	Port Arthur, Lake Superior (Canada)	720
Tawas, Lake Huron.....	284	Ludington, Lake Michigan.....	590	Ontonagon, Lake Superior.....	721
Saginaw river, Lake Huron.....	312	Manitowoc, Lake Michigan.....	605	Chicago, Lake Michigan.....	739
Alpena, Lake Huron.....	321	Marquette, Lake Superior.....	609	Bayfield, Lake Superior.....	785
Cheboygan, Lake Huron.....	399	Green Bay, Lake Michigan.....	614	Ashland, Lake Superior.....	798
		Sheboygan, Lake Michigan.....	629	Duluth, Lake Superior.....	847

LAKE AND RIVER LANDINGS BETWEEN DETROIT AND OGDENSBURG (DISTANCES FROM DETROIT).

Put in Bay, Lake Erie.....	50	Port Colborne, Lake Erie (Canada) ..	237	Fair Haven, Lake Ontario.....	397
Toledo, Lake Erie.....	57	Buffalo, Lake Erie.....	255	Oswego, Lake Ontario.....	407
Sandusky, Lake Erie.....	68	Port Dalhousie, Lake Ontario (Canada)	264	Kingston, Lake Ontario (Canada)...	424
Cleveland, Lake Erie.....	105	Toronto, Lake Ontario (Canada).....	294	Cape Vincent, Lake Ontario.....	425
Ashtabula, Lake Erie.....	147	Charlotte, Lake Ontario.....	354	Ogdensburg, St. Lawrence river.....	493
Erie, Lake Erie.....	185				

LAKE AND RIVER LANDINGS BETWEEN DETROIT AND DULUTH (DISTANCES FROM DETROIT).

Port Huron, St. Clair river (Lake Huron).....	60	Midland, Lake Huron (Canada).....	334	Grand Haven, Lake Michigan.....	552
Sand Beach, Lake Huron.....	122	Sault Ste. Marie, Lake Superior.....	345	L'Anse, Lake Superior.....	561
Goderich, Lake Huron (Canada).....	123	Traverse, Lake Michigan.....	404	Houghton, Lake Superior.....	565
Oscoda, Lake Huron.....	173	Escanaba, Lake Michigan.....	442	Milwaukee, Lake Michigan.....	569
Tawas, Lake Huron.....	179	Manistee, Lake Michigan.....	457	St. Joseph, Lake Michigan.....	609
Saginaw river, Lake Huron.....	207	Ludington, Lake Michigan.....	485	Port Arthur, Lake Superior (Canada)	615
Alpena, Lake Huron.....	216	Manitowoc, Lake Michigan.....	500	Ontonagon, Lake Superior.....	616
Cheboygan, Lake Huron.....	294	Marquette, Lake Superior.....	504	Chicago, Lake Michigan.....	634
Mackinac, Lake Huron.....	303	Green Bay, Lake Michigan.....	509	Bayfield, Lake Superior.....	680
Owen sound, Lake Huron (Canada) .	307	Sheboygan, Lake Michigan.....	524	Ashland, Lake Superior.....	693
Collingwood, Lake Huron (Canada) .	325	Copper Harbor, Lake Superior.....	534	Duluth, Lake Superior.....	742
		Muskegon, Lake Michigan.....	550		

LAKE AND RIVER LANDINGS BETWEEN CHEBOYGAN AND OGDENSBURG (DISTANCES FROM CHEBOYGAN).

Alpena, Lake Huron.....	100	Midland, Lake Huron (Canada).....	239	Port Dalhousie, Lake Ontario (Canada) ..	558
Oscoda, Lake Huron.....	126	Detroit, Detroit river (Lake St. Clair) .	294	Toronto, Lake Ontario (Canada).....	588
Tawas, Lake Huron.....	145	Put in Bay, Lake Erie.....	344	Charlotte, Lake Ontario.....	648
Sand Beach, Lake Huron.....	173	Toledo, Lake Erie.....	351	Fair Haven, Lake Ontario.....	691
Saginaw river, Lake Huron.....	190	Sandusky, Lake Erie.....	362	Oswego, Lake Ontario.....	701
Goderich, Lake Huron (Canada).....	200	Cleveland, Lake Erie.....	399	Kingston, Lake Ontario (Canada)....	718
Owen sound, Lake Huron (Canada) .	212	Ashtabula, Lake Erie.....	441	Cape Vincent, Lake Ontario.....	719
Collingwood, Lake Huron (Canada) .	230	Erie, Lake Erie.....	479	Ogdensburg, St. Lawrence river.....	784
Port Huron, St. Clair river (Lake Huron).....	234	Port Colborne, Lake Erie (Canada) ..	539		
		Buffalo, Lake Erie.....	549		

LAKE AND RIVER LANDINGS BETWEEN CHEBOYGAN AND DULUTH (DISTANCES FROM CHEBOYGAN).

Mackinac, Lake Huron.....	17	Sheboygan, Lake Michigan.....	232	St. Joseph, Lake Michigan.....	317
Sault Ste. Marie, Lake Superior.....	93	Marquette, Lake Superior.....	252	Chicago, Lake Michigan.....	342
Traverse, Lake Michigan.....	112	Muskegon, Lake Michigan.....	258	Port Arthur, Lake Superior (Canada)	363
Escanaba, Lake Michigan.....	150	Grand Haven, Lake Michigan.....	260	Ontonagon, Lake Superior.....	364
Manistee, Lake Michigan.....	165	Milwaukee, Lake Michigan.....	277	Bayfield, Lake Superior.....	428
Ludington, Lake Michigan.....	193	Copper Harbor, Lake Superior.....	282	Ashland, Lake Superior.....	441
Manitowoc, Lake Michigan.....	208	L'Anse, Lake Superior.....	309	Duluth, Lake Superior.....	490
Green Bay, Lake Michigan.....	217	Houghton, Lake Superior.....	313		

LAKE AND RIVER LANDINGS BETWEEN GRAND HAVEN AND OGDENSBURG (DISTANCES FROM GRAND HAVEN).

	MILES.		MILES.		MILES.
Muskegon, Lake Michigan.....	20	Saginaw river, Lake Huron	448	Ashtabula, Lake Erie	699
Ludington, Lake Michigan.....	68	Goderich, Lake Huron (Canada).....	458	Erie, Lake Erie	737
Manistee, Lake Michigan.....	93	Owen sound, Lake Huron (Canada) ..	469	Port Colborne, Lake Erie (Canada) ..	789
Green Bay, Lake Michigan.....	184	Collingwood, Lake Huron (Canada) ..	487	Buffalo, Lake Erie	807
Escanaba, Lake Michigan.....	193	Port Huron, St. Clair river (Lake		Port Dalhousie, Lake Ontario (Canada)	816
Traverse, Lake Michigan.....	210	Huron)	492	Toronto, Lake Ontario (Canada)	846
Mackinac, Lake Huron.....	246	Midland, Lake Huron (Canada)	496	Charlotte, Lake Ontario.....	906
Sheboygan, Lake Michigan.....	260	Detroit, Detroit river (Lake St. Clair)	552	Fair Haven, Lake Ontario.....	949
Alpena, Lake Huron	358	Put in Bay, Lake Erie	602	Oswego, Lake Ontario.....	959
Oscoda, Lake Huron	384	Toledo, Lake Erie.....	609	Kingston, Lake Ontario (Canada) ...	976
Tawas, Lake Huron	403	Sandusky, Lake Erie.....	620	Cape Vincent, Lake Ontario.....	977
Sand Beach, Lake Huron.....	431	Cleveland, Lake Erie.....	657	Ogdensburg, St. Lawrence river.....	1,045

LAKE AND RIVER LANDINGS BETWEEN GRAND HAVEN AND DULUTH (DISTANCES FROM GRAND HAVEN).

St. Joseph, Lake Michigan	68	Sault Ste. Marie, Lake Superior	339	Port Arthur, Lake Superior (Canada)	609
Milwaukee, Lake Michigan.....	85	Marquette, Lake Superior.....	498	Ontonagon, Lake Superior.....	610
Sheboygan, Lake Michigan.....	88	Copper Harbor, Lake Superior	528	Bayfield, Lake Superior	674
Manitowoc, Lake Michigan.....	103	L'Anse, Lake Superior	555	Ashland, Lake Superior	687
Chicago, Lake Michigan	109	Houghton, Lake Superior	559	Duluth, Lake Superior	736

LAKE AND RIVER LANDINGS BETWEEN CHICAGO AND OGDENSBURG (DISTANCES FROM CHICAGO).

St. Joseph, Lake Michigan.....	61	Oscoda, Lake Huron	466	Cleveland, Lake Erie.....	739
Milwaukee, Lake Michigan.....	84	Tawas, Lake Huron.....	485	Ashtabula, Lake Erie	781
Grand Haven, Lake Michigan	109	Sand Beach, Lake Huron	513	Erie, Lake Erie	819
Muskegon, Lake Michigan.....	120	Saginaw river, Lake Huron.....	530	Port Colborne, Lake Erie (Canada) ..	871
Sheboygan, Lake Michigan.....	128	Goderich, Lake Huron (Canada).....	540	Buffalo, Lake Erie	889
Manitowoc, Lake Michigan	156	Owen sound, Lake Huron (Canada) ..	552	Port Dalhousie, Lake Ontario (Canada)	898
Ludington, Lake Michigan	157	Collingwood, Lake Huron (Canada) ..	570	Toronto, Lake Ontario (Canada)	928
Manistee, Lake Michigan.....	182	Port Huron, St. Clair river (Lake		Charlotte, Lake Ontario.....	988
Green Bay, Lake Michigan	a255	Huron)	574	Fair Haven, Lake Ontario.....	1,031
Escanaba, Lake Michigan	280	Midland, Lake Huron (Canada)	579	Oswego, Lake Ontario	1,041
Traverse, Lake Michigan	298	Detroit, Detroit river (Lake St. Clair)	634	Kingston, Lake Ontario (Canada) ...	1,058
Mackinac, Lake Huron.....	329	Put in Bay, Lake Erie	684	Cape Vincent, Lake Ontario	1,059
Cheboygan, Lake Huron	342	Toledo, Lake Erie	691	Ogdensburg, St. Lawrence river	1,127
Alpena, Lake Huron	440	Sandusky, Lake Erie	702		

LAKE AND RIVER LANDINGS BETWEEN CHICAGO AND DULUTH (DISTANCES FROM CHICAGO).

Sault Ste. Marie, Lake Superior.....	422	Houghton, Lake Superior.....	642	Bayfield, Lake Superior.....	b757
Marquette, Lake Superior	581	Port Arthur, Lake Superior (Canada)	692	Ashland, Lake Superior.....	b770
Copper Harbor, Lake Superior	611	Ontonagon, Lake Superior	693	Duluth, Lake Superior.....	819
L'Anse, Lake Superior.....	638				

LAKE AND RIVER LANDINGS BETWEEN MILWAUKEE AND OGDENSBURG (DISTANCES FROM MILWAUKEE).

Sheboygan, Lake Michigan.....	52	Tawas, Lake Huron.....	420	Cleveland, Lake Erie.....	674
Manitowoc, Lake Michigan.....	77	Sand Beach, Lake Huron.....	448	Ashtabula, Lake Erie.....	716
Grand Haven, Lake Michigan.....	85	Saginaw river, Lake Huron	465	Erie, Lake Erie.....	754
Muskegon, Lake Michigan.....	85	Goderich, Lake Huron (Canada).....	475	Port Colborne, Lake Erie (Canada) ..	806
St. Joseph, Lake Michigan.....	97	Owen sound, Lake Huron (Canada) ..	489	Buffalo, Lake Erie	824
Ludington, Lake Michigan.....	98	Collingwood, Lake Huron (Canada) ..	507	Port Dalhousie, Lake Ontario (Canada)	833
Manistee, Lake Michigan.....	117	Port Huron, St. Clair river (Lake		Toronto, Lake Ontario (Canada)	863
Green Bay, Lake Michigan	a178	Huron)	509	Charlotte, Lake Ontario.....	923
Escanaba, Lake Michigan	202	Midland, Lake Huron (Canada).....	516	Fair Haven, Lake Ontario.....	966
Traverse, Lake Michigan	222	Detroit, Detroit river (Lake St. Clair)	569	Oswego, Lake Ontario.....	976
Mackinac, Lake Huron	266	Put in Bay, Lake Erie	619	Kingston, Lake Ontario (Canada)	993
Cheboygan, Lake Huron	277	Toledo, Lake Erie.....	626	Cape Vincent, Lake Ontario.....	994
Alpena, Lake Huron	375	Sandusky, Lake Erie.....	637	Ogdensburg, St. Lawrence river	1,062
Oscoda, Lake Huron	401				

LAKE AND RIVER LANDINGS BETWEEN MILWAUKEE AND DULUTH (DISTANCES FROM MILWAUKEE).

Chicago, Lake Michigan.....	84	L'Anse, Lake Superior.....	575	Bayfield, Lake Superior.....	694
Sault Ste. Marie, Lake Superior.....	359	Houghton, Lake Superior.....	579	Ashland, Lake Superior	707
Marquette, Lake Superior.....	518	Port Arthur, Lake Superior (Canada)	629	Duluth, Lake Superior.....	756
Copper Harbor, Lake Superior.....	548	Ontonagon, Lake Superior	630		

a Through Sturgeon Bay canal.

b Through Portage canal.

TRANSPORTATION ON THE GREAT LAKES.

291

LAKE AND RIVER LANDINGS BETWEEN MARQUETTE AND OGDENSBURG (DISTANCES FROM MARQUETTE).

	MILES.		MILES.		MILES.
Sault Ste. Marie, Lake Superior.....	159	Collingwood, Lake Huron (Canada) .	427	Chicago, Lake Michigan.....	581
Cheboygan, Lake Huron	252	Midland, Lake Huron (Canada).....	436	Cleveland, Lake Erie.....	609
Mackinac, Lake Huron.....	259	Port Huron, St. Clair river (Lake		Ashtabula, Lake Erie	651
Alpena, Lake Huron	309	Huron)	444	Erie, Lake Erie	689
Oscoda, Lake Huron	336	Manitowoc, Lake Michigan.....	448	Port Colborne, Lake Erie (Canada)..	741
Traverse Lake Michigan.....	352	Green Bay, Lake Michigan.....	453	Buffalo, Lake Erie	759
Tawas, Lake Huron.....	359	Sheboygan, Lake Michigan.....	468	Port Dalhousie, Lake Ontario (Canada)	768
Sand Beach, Lake Huron.....	386	Grand Haven, Lake Michigan	498	Toronto, Lake Ontario (Canada).....	798
Escanaba, Lake Michigan.....	392	Detroit, Detroit river (Lake St. Clair)	504	Charlotte, Lake Ontario.....	858
Saginaw river, Lake Huron.....	395	Milwaukee, Lake Michigan.....	518	Fair Haven, Lake Ontario.....	901
Manistee, Lake Michigan.....	402	Put in Bay, Lake Erie.....	554	Oswego, Lake Ontario.....	911
Muskegon, Lake Michigan	405	St. Joseph, Lake Michigan.....	556	Kingston, Lake Ontario (Canada)...	928
Owen sound, Lake Huron (Canada)...	409	Toledo, Lake Erie.....	561	Cape Vincent, Lake Ontario.....	929
Goderich, Lake Huron (Canada).....	412	Sandusky, Lake Erie.....	572	Ogdensburg, St. Lawrence river.....	997
Ludington, Lake Michigan.....	427				

LAKE AND RIVER LANDINGS BETWEEN MARQUETTE AND DULUTH (DISTANCES FROM MARQUETTE).

Copper Harbor, Lake Superior.....	78	Ontonagon, Lake Superior.....	141	Ashland, Lake Superior	a219
L'Anse, Lake Superior.....	79	Port Arthur, Lake Superior (Canada)	172	Duluth, Lake Superior	a266
Houghton, Lake Superior	a82	Bayfield, Lake Superior	a207		

LAKE AND RIVER LANDINGS BETWEEN DULUTH AND OGDENSBURG (DISTANCES FROM DULUTH).

Bayfield, Lake Superior.....	80	Manistee, Lake Michigan.....	640	Toledo, Lake Erie.....	799
Ashland, Lake Superior	94	Muskegon, Lake Michigan.....	643	Sandusky, Lake Erie.....	810
Ontonagon, Lake Superior.....	138	Owen sound, Lake Huron (Canada) ..	647	Chicago, Lake Michigan.....	819
Houghton, Lake Superior.....	a178	Goderich, Lake Huron (Canada).....	650	Cleveland, Lake Erie.....	847
Copper Harbor, Lake Superior.....	206	Collingwood, Lake Huron (Canada) .	655	Ashtabula, Lake Erie.....	889
L'Anse, Lake Superior.....	a209	Ludington, Lake Michigan	665	Erie, Lake Erie	927
Marquette, Lake Superior.....	a266	Midland, Lake Huron (Canada)	674	Port Colborne, Lake Erie (Canada)..	979
Sault Ste. Marie, Lake Superior.....	397	Port Huron, St. Clair river (Lake		Buffalo, Lake Erie	997
Cheboygan, Lake Huron	490	Huron)	682	Port Dalhousie, Lake Ontario (Canada)	1,006
Mackinac, Lake Huron	497	Manitowoc, Lake Michigan.....	686	Toronto, Lake Ontario (Canada).....	1,036
Alpena, Lake Huron	547	Green Bay, Lake Michigan	691	Charlotte, Lake Ontario.....	1,096
Oscoda, Lake Huron	574	Sheboygan, Lake Michigan.....	706	Fair Haven, Lake Ontario.....	1,139
Traverse, Lake Michigan.....	590	Grand Haven, Lake Michigan	736	Oswego, Lake Ontario.....	1,149
Tawas, Lake Huron.....	597	Detroit, Detroit river (Lake St. Clair)	742	Kingston, Lake Ontario (Canada)....	1,166
Sand Beach, Lake Huron.....	624	Milwaukee, Lake Michigan.....	756	Cape Vincent, Lake Ontario.....	1,167
Escanaba, Lake Michigan	630	Put in Bay, Lake Erie.....	792	Ogdensburg, St. Lawrence river.....	1,235
Saginaw river, Lake Huron.....	633	St. Joseph, Lake Michigan.....	794		

a Through Portage canal.

STATISTICAL TABLES.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT FORMING THE LAKE FLEETS AND CREDITED TO THE RESPECTIVE PORTS OF HAIL, WITH TOTALS FOR EACH LAKE AND ST. LAWRENCE RIVER.

PORTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.
Total.....	2,737	920,294	\$48,580,174	1,467	595,813	\$40,868,824	962	185,081	\$4,238,850	308	139,400	\$3,472,500
Lake Superior.....	167	39,653	2,763,500	126	29,257	2,344,300	31	2,784	74,200	10	7,612	345,000
Ashland, Wisconsin.....	1	73	5,000	1	73	5,000				2	1,284	38,000
Baraga, Michigan.....	3	1,319	44,000	1	35	6,000						
Bayfield, Wisconsin.....	1	291	6,000				1	291	6,000	3	2,684	175,000
Duluth, Minnesota.....	39	4,386	338,300	35	1,614	161,800	1	88	1,500	1	326	4,000
Marquette, Michigan.....	111	20,759	1,532,200	81	18,028	1,461,500	29	2,405	66,700			
Pequanning, Michigan.....	4	2,082	124,000	2	1,069	79,000				2	1,013	45,000
Republic, Michigan.....	4	5,314	239,000	2	3,009	156,000				2	2,305	83,000
St. Marys Falls, Michigan.....	2	477	25,000	2	477	25,000						
Superior, Wisconsin.....	2	4,952	450,000	2	4,952	450,000						
Lakes Huron and St. Clair.....	726	262,833	13,107,650	340	152,463	10,521,600	213	34,119	812,050	173	76,251	1,774,000
Algonac, Michigan.....	6	2,345	46,000							6	2,345	46,000
Alpena, Michigan.....	9	4,984	168,400	1	1,117	100,000				8	3,867	66,400
Bay city, Michigan.....	56	31,176	1,146,100	11	7,286	447,500	7	3,625	127,400	38	20,265	571,200
Cassville, Michigan.....	1	298	4,000				1	298	4,000			
Cheboygan, Michigan.....	2	83	7,500	2	83	7,500						
Detroit, Michigan.....	275	129,788	7,547,800	144	88,906	6,594,000	87	19,475	416,500	44	21,387	537,300
East China, Michigan.....	2	1,449	67,000							2	1,449	67,000
East Saginaw, Michigan.....	30	13,261	419,600	6	3,999	251,500	2	776	14,000	22	8,486	154,100
Marine, Michigan.....	23	9,875	230,800	1	1,119	50,000	5	2,038	40,500	17	6,718	140,300
Mount Clemens, Michigan.....	2	504	1,500							2	504	1,500
New Baltimore, Michigan.....	2	147	11,000	2	147	11,000						
Oscoda, Michigan.....	3	1,289	17,000				1	591	12,000	2	696	5,000
Port Huron, Michigan.....	293	61,482	3,253,950	165	48,042	2,953,100	106	6,381	184,150	22	7,059	116,700
Saginaw, Michigan.....	10	2,829	88,500	4	1,004	64,000	1	252	500	5	1,573	24,000
St. Clair, Michigan.....	12	3,343	100,500	4	760	43,000	3	683	13,000	5	1,900	44,500
Lake Michigan.....	1,003	196,216	9,114,400	453	101,800	7,227,600	500	76,577	1,485,300	50	17,839	401,500
Benton Harbor, Michigan.....	3	699	39,500	2	655	38,500	1	44	1,000			
Charlevoix, Michigan.....	6	488	12,800	2	83	7,000	4	405	5,800			
Chicago, Illinois.....	339	71,260	3,088,350	156	28,810	2,257,800	163	35,940	712,550	20	6,510	118,000
Escanaba, Michigan.....	5	1,615	52,000	1	448	25,000	4	1,167	27,000			
Fort Howard, Wisconsin.....	2	222	5,500				2	222	5,500			
Frankfort, Michigan.....	1	7	1,000	1	7	1,000						
Grand Haven, Michigan.....	225	22,308	1,608,650	147	16,861	1,447,300	77	4,829	123,350	1	618	38,000
Green Bay, Wisconsin.....	10	3,300	115,000	4	995	59,000	3	955	27,500	3	1,350	28,500
Holland, Michigan.....	2	220	3,000				2	220	3,000			
Kenosha, Wisconsin.....	19	7,378	358,900	6	4,037	304,000	12	3,145	52,900	1	196	2,000
Kewaunee, Wisconsin.....	1	100	3,000				1	160	3,000			
Ludington, Michigan.....	4	752	12,000				4	752	12,000			
Manistee, Michigan.....	11	2,732	54,000	1	530	25,000	9	1,890	25,000	1	312	4,000
Manitowoc, Wisconsin.....	15	1,775	34,600				15	1,775	34,600			
Menominee, Michigan.....	1	277	2,500							1	277	2,500
Milwaukee, Wisconsin.....	259	61,694	3,205,000	123	46,405	2,908,500	130	13,043	247,500	6	2,246	49,000
Montague, Michigan.....	2	217	4,000				2	217	4,000			
Muskegon, Michigan.....	17	3,088	63,100	2	504	24,000	15	2,584	39,100			
Northport, Michigan.....	1	63	7,000	1	63	7,000						
Onekama, Michigan.....	1	146	3,500							1	146	3,500
Pewaukee, Michigan.....	2	260	4,500				2	260	4,500			
Peshigo, Wisconsin.....	3	1,704	52,500							3	1,704	52,500
Petoskey, Michigan.....	1	125	12,000	1	125	12,000						
Racine, Wisconsin.....	26	6,932	145,400				15	2,883	47,400	11	4,049	98,000
St. James, Michigan.....	1	81	1,500				1	81	1,500			
St. Joseph, Michigan.....	2	164	1,000				2	164	1,000			
Saugatuck, Michigan.....	3	647	33,500	3	647	33,500						
Sheboygan, Wisconsin.....	25	4,115	79,900				24	3,914	76,900	1	201	3,000
South Haven, Michigan.....	4	374	5,100				4	374	5,100			
Spring Lake, Michigan.....	2	345	8,000				2	345	8,000			
Sturgeon Bay, Wisconsin.....	2	550	5,000				1	320	2,500	1	230	2,500
Suttons Bay, Michigan.....	1	232	3,000				1	232	3,000			
Traverse, Michigan.....	1	336	20,000	1	336	20,000						
Troy, Wisconsin.....	1	301	7,000				1	301	7,000			
Waukegan, Illinois.....	2	1,296	58,000	2	1,296	58,000						
Waukegan, Wisconsin.....	1	48	600				1	48	600			
Whitehall, Michigan.....	2	307	4,000				2	307	4,000			

TRANSPORTATION ON THE GREAT LAKES.

293

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL, ETC.—Continued.

PORTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.			UNRIGGED CRAFT.		
	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.
Lake Erie	667	392,903	\$22,163,824	449	296,034	\$19,583,124	151	61,097	\$1,647,700	67	33,772	\$933,000
Ashtabula, Ohio	4	175	27,000	4	175	27,000						
Avon, Ohio	1	284	5,000				1	284	5,000			
Buffalo, New York	204	128,880	8,235,124	167	109,575	7,760,124	17	10,376	290,500	20	8,909	184,500
Cleveland, Ohio	219	163,227	8,802,800	133	119,969	7,579,500	67	30,056	871,300	19	12,302	352,000
Dunkirk, New York	3	522	29,000	2	498	27,500	1	24	1,500			
Erie, Pennsylvania	37	29,454	1,759,900	33	28,142	1,723,000	3	487	11,900	1	825	25,000
Fairport, Ohio	5	316	17,000	3	81	13,500	2	235	3,500			
Fremont, Ohio	2	20	1,800	2	20	1,800						
Gratwick, Ohio	1	538	28,000							1	538	28,000
Huron, Ohio	12	5,091	274,700	8	3,532	226,000	3	649	13,700	1	910	35,000
Lorain, Ohio	18	8,621	321,500	3	1,802	157,500	13	5,442	119,500	2	1,377	44,500
Milan, Ohio	6	6,824	323,500	2	2,988	290,000	3	1,969	58,500	1	1,847	65,000
Norwalk, Ohio	2	1,344	51,000	1	723	35,000				1	621	10,000
Port Clinton, Ohio	1	56	5,000	1	56	5,000						
Put in Bay, Ohio	1	168	6,000	1	168	6,000						
Suspension Bridge, New York	3	346	19,000	2	305	18,000	1	41	1,000			
Sandusky, Ohio	64	18,303	865,200	42	13,331	764,200	17	3,567	85,000	5	1,405	16,000
Toledo, Ohio	59	18,027	907,300	32	9,968	726,000	20	5,107	129,300	7	2,952	52,000
Tonawanda, New York	19	5,696	287,000	12	3,100	223,000				7	2,506	64,000
Vermilion, New York	6	5,051	198,000	1	1,601	90,000	3	1,960	57,000	2	1,490	51,000
Lake Ontario	131	15,859	676,300	66	5,407	460,700	63	10,018	210,600	2	434	5,000
Cape Vincent, New York	52	2,220	126,500	24	886	94,000	28	1,334	32,500			
Charlotte, New York												
Chaumont, New York	1	309	6,000				1	309	6,000			
Hamlin, New York	1	175	3,000				1	175	3,000			
Henderson, New York	1	246	4,000				1	246	4,000			
Medina, New York	1	9	2,000	1	9	2,000						
Oswego, New York	42	8,842	402,000	22	3,433	289,800	20	5,409	112,200			
Pultneyville, New York	1	80	1,500				1	80	1,500			
Rochester, New York	21	2,278	90,900	16	999	70,000	4	951	16,400	1	326	4,500
Sacketts Harbor, New York	5	521	7,700	1	12	1,200	3	401	6,000	1	108	500
Sodus Point, New York	2	296	8,000				1	278	6,000			
Troy, New York	1	555	18,000	1	18	2,000	1	555	18,000			
Wilson, New York	2	280	5,000				2	280	5,000			
Youngstown, New York	1	50	1,700	1	50	1,700						
St. Lawrence river	43	12,830	754,500	33	10,852	731,500	4	486	9,000	6	1,492	14,000
Alexandria Bay, New York	3	37	5,000	3	37	5,000						
Clayton, New York	7	1,328	69,500	5	904	61,000	2	424	8,500			
Ogdensburg, New York	33	11,465	680,000	25	9,911	665,500	2	62	500	6	1,492	14,000

EQUIPMENT, OCCUPATION,

TABLE 2.—EQUIPMENT OF FLEETS BY CLASSES—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS, SAILING INDICATIVE OF

1	PORTS.	TOTAL EQUIPMENT.			STEAMERS.								
		Num- ber.	Gross tonnage.	Valuation.	Side-wheel passenger.			Propellers carrying both pas- sengers and freight.			Propellers carrying freight only.		
					Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.
1	Total.....	2,737	920,294	\$48,580,174	62	27,259	\$2,000,500	303	143,907	\$10,971,124	433	388,978	\$23,438,700
2	Lake Superior.....	167	39,653	2,763,500				29	12,313	1,091,000	15	13,517	898,500
3	Ashland, Wisconsin.....	1	73	5,000				1	73	5,000			
4	Baraga, Michigan.....	3	1,319	44,000									
5	Bayfield, Wisconsin.....	1	291	6,000									
6	Duluth, Minnesota.....	39	4,386	338,300				7	714	47,500	1	42	4,000
7	Marquette, Michigan.....	111	20,759	1,532,200				19	10,521	954,500	9	5,209	279,500
8	Pequaming, Michigan.....	4	2,082	124,000				1	764	70,000	1	305	9,000
9	Republic, Michigan.....	4	5,314	239,000							2	3,009	156,000
10	St. Marys Falls, Michigan.....	2	477	25,000				1	241	14,000			
11	Superior, Wisconsin.....	2	4,952	450,000							2	4,952	450,000
12	Lakes Huron and St. Clair.....	726	262,833	13,107,650	23	17,729	1,864,500	43	17,972	1,296,500	138	104,477	6,221,500
13	Algonac, Michigan.....	6	2,345	46,000									
14	Alpena, Michigan.....	9	4,984	166,400				1	1,117	100,000			
15	Bay city, Michigan.....	56	31,176	1,146,100	2	865	30,000	3	2,015	127,500	5	4,374	289,000
16	Caseville, Michigan.....	1	298	4,000									
17	Cheboygan, Michigan.....	2	83	7,500	1	47	6,000	1	36	1,500			
18	Detroit, Michigan.....	275	129,768	7,547,800	18	16,425	1,817,000	17	8,565	691,500	56	56,994	3,422,500
19	East China, Michigan.....	2	1,449	67,000									
20	East Saginaw, Michigan.....	30	13,261	419,600	2	392	11,500	4	3,607	240,000			
21	Marine, Michigan.....	23	9,875	230,800							1	1,119	50,000
22	Mount Clemens, Michigan.....	2	504	1,500									
23	New Baltimore, Michigan.....	2	147	11,000				2	147	11,000			
24	Oscoda, Michigan.....	3	1,289	17,000									
25	Port Huron, Michigan.....	293	61,482	3,253,950				11	1,887	120,000	73	40,840	2,392,000
26	Saginaw, Michigan.....	10	2,829	88,500				1	137	7,000	2	811	53,000
27	St. Clair, Michigan.....	12	3,343	100,500				3	441	28,000	1	819	15,000
28	Lake Michigan.....	1,003	196,216	9,114,400	22	5,879	501,500	96	28,256	2,048,500	105	57,027	3,511,000
29	Benton Harbor, Michigan.....	3	699	39,500				2	653	38,500			
30	Charlevoix, Michigan.....	6	488	12,800				2	83	7,000			
31	Chicago, Illinois.....	319	71,260	3,088,350	5	523	39,000	34	13,181	1,075,500	28	10,960	673,000
32	Escanaba, Michigan.....	5	1,615	52,000				1	448	25,000			
33	Fort Howard, Wisconsin.....	2	222	5,500									
34	Frankfort, Michigan.....	1	7	1,000									
35	Grand Haven, Michigan.....	225	22,308	1,608,650	6	1,659	204,000	31	5,736	450,000	23	6,305	464,500
36	Green Bay, Wisconsin.....	10	3,300	115,000	1	95	4,000	3	900	55,000			
37	Holland, Michigan.....	2	220	3,000									
38	Kenosha, Wisconsin.....	19	7,378	358,900	4	2,459	194,000	2	1,578	110,000			
39	Kewaunee, Wisconsin.....	1	160	3,000									
40	Ludington, Michigan.....	4	752	12,000									
41	Manistee, Michigan.....	11	2,732	54,000	1	530	25,000						
42	Manitowoc, Wisconsin.....	15	1,775	34,600									
43	Menominee, Michigan.....	1	277	2,500									
44	Milwaukee, Wisconsin.....	259	61,694	3,205,000	5	613	35,500	12	3,282	166,000	53	39,172	2,340,500
45	Montague, Michigan.....	2	217	4,000									
46	Muskegon, Michigan.....	17	3,088	63,100				2	504	24,000			
47	Northport, Michigan.....	1	63	7,000				1	63	7,000			
48	Onekama, Michigan.....	1	146	3,500									
49	Pentwater, Michigan.....	2	260	4,500									
50	Peshigo, Wisconsin.....	3	1,704	52,500									
51	Petoskey, Michigan.....	1	123	12,000				1	123	12,000			
52	Racine, Wisconsin.....	26	6,932	145,400									
53	St. James, Michigan.....	1	81	1,500									
54	St. Joseph, Michigan.....	2	164	1,000									
55	Saugatuck, Michigan.....	3	647	33,500				3	647	33,500			
56	Sheboygan, Wisconsin.....	25	4,115	79,900									
57	South Haven, Michigan.....	4	374	5,100									
58	Spring Lake, Michigan.....	2	345	8,000									
59	Sturgeon Bay, Wisconsin.....	2	550	5,000									
60	Suttons Bay, Michigan.....	1	232	3,000									
61	Traverse, Michigan.....	1	336	20,000				1	336	20,000			
62	Troy, Wisconsin.....	1	301	7,000									
63	Waukegan, Illinois.....	2	1,296	58,000				1	706	25,000	1	590	33,000
64	Waukesha, Wisconsin.....	1	48	600									
65	Whitehall, Michigan.....	2	307	1,000									
66	Lake Erie.....	667	392,903	22,163,824	10	2,221	144,000	91	83,818	6,342,724	166	202,224	12,065,700
67	Ashtabula, Ohio.....	4	175	27,000									
68	Avon, Ohio.....	1	264	5,000									
69	Buffalo, New York.....	204	128,400	8,235,124				43	34,542	2,787,424	50	72,066	4,546,000
70	Cleveland, Ohio.....	219	163,227	8,802,800	1	36	4,000	19	33,986	2,540,000	66	83,979	4,795,500
71	Dunkirk, New York.....	3	522	29,000							1	460	25,000

TRANSPORTATION ON THE GREAT LAKES.

295

AND CONSTRUCTION—Continued.

VESSELS, AND UNRIGGED CRAFT REPORTED ON IN THE PRECEDING TABLE, BUT DIVIDED INTO CLASSES OCCUPATION AND RIG.

STEAMERS—continued.						SAIL AND UNRIGGED VESSELS.								
Tugs.			All other classes.			Schooners.			Lake barges.			All other classes.		
Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.
489	24,451	\$2,556,300	180	11,218	\$1,302,200	917	184,029	\$4,217,200	301	138,404	\$3,463,500	52	2,048	\$30,650
67	2,849	306,300	15	578	48,500	31	2,784	74,200	10	7,012	345,000			
1	35	6,000							2	1,284	38,000			
22	722	97,800	5	136	12,500	1	291	6,000	3	2,684	175,000			
43	1,856	191,500	10	442	36,000	29	2,405	66,700	1	326	4,000			
									2	1,013	45,000			
1	236	11,000							2	2,305	83,000			
102	8,383	639,600	34	3,902	490,500	203	33,639	805,500	171	75,849	1,772,500	12	882	8,050
1	12	1,000				7	3,625	127,400	6	2,345	46,000			
						1	298	4,000	8	3,867	66,400			
									38	20,265	571,200			
34	3,671	272,000	10	3,251	421,000	83	19,074	411,900	44	21,387	537,300	4	401	4,600
									2	1,449	67,000			
						2	776	14,000	22	8,486	154,100			
						5	2,038	40,500	17	6,718	140,300			
									1	364	500	1	140	1,000
66	4,664	362,600	15	651	78,500	1	591	12,000	2	698	5,000			
1	36	4,000				100	6,302	182,200	21	6,797	116,200	7	341	2,450
						1	252	500	5	1,573	24,000			
						3	683	13,000	5	1,900	44,500			
184	7,949	836,100	46	2,689	330,500	488	76,442	1,481,500	46	17,353	394,500	16	621	10,800
						1	44	1,000						
						4	405	5,800						
74	2,469	298,800	15	1,677	171,500	155	35,859	710,000	18	6,255	115,000	10	336	5,550
						4	1,167	27,000						
						2	222	5,500						
1	7	1,000				74	4,784	122,400	1	618	38,000	3	45	950
64	2,572	261,800	23	575	67,000	3	955	27,500	3	1,350	28,500			
						2	220	3,000						
						12	3,145	52,900	1	196	2,000			
						1	160	3,000						
						4	752	12,000						
						9	1,890	25,000	1	312	4,000			
						15	1,775	34,600						
									1	277	2,500			
45	2,901	274,500	8	437	92,000	129	13,034	247,200	6	2,246	49,000	1	9	300
						2	217	4,000						
						15	2,584	39,100						
						2	260	4,500				1	146	3,500
									3	1,704	52,500			
						15	2,883	47,400	10	3,964	97,500	1	85	500
						1	81	1,500						
						2	164	1,000						
						24	3,914	76,800	1	201	3,000			
						4	374	5,100						
						2	345	8,000						
						1	320	2,500	1	230	2,500			
						1	232	3,000						
						1	301	7,000						
						1	48	600						
						2	307	4,000						
123	4,806	702,000	59	2,905	328,700	148	61,014	1,645,200	67	35,772	933,000	3	83	2,500
4	175	27,000												
54	2,057	317,500	20	910	129,200	17	264	5,000						
29	1,002	134,000	18	966	106,000	64	10,376	290,500	20	8,909	184,500			
			1	38	2,500	1	30,873	868,800	19	12,302	352,000	3	83	2,500
							24	1,500						

EQUIPMENT, OCCUPATION, AND

TABLE 2.—EQUIPMENT OF FLEETS

PORTS.	TOTAL EQUIPMENT.			STEAMERS.								
				Side-wheel passengers.			Propellers carrying both passengers and freight.			Propellers carrying freight only.		
	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.	Num-ber.	Gross tonnage.	Valuation.
Lake Erie—Continued.												
1 Erie, Pennsylvania.....	37	29,454	\$1,759,900				9	5,004	\$330,500	14	22,633	\$1,347,000
2 Fairport, Ohio.....	5	316	17,000									
3 Fremont, Ohio.....	2	20	1,800				1	11	800			
4 Gratiwick, Ohio.....	1	538	28,000									
5 Huron, Ohio.....	12	5,091	274,700							2	3,433	204,000
6 Lorain, Ohio.....	18	8,621	321,500							1	1,759	150,000
7 Milan, Ohio.....	6	6,824	323,500				1	2,279	140,000	1	709	60,000
8 Norwalk, Ohio.....	2	1,344	51,000							1	723	35,000
9 Port Clinton, Ohio.....	1	56	5,000									
10 Put in Bay, Ohio.....	1	168	6,000	1	168	\$6,000						
11 Suspension Bridge, New York.....	3	346	19,000							1	276	15,000
12 Sandusky, Ohio.....	64	18,303	865,200	6	1,273	99,000	9	495	45,500	19	11,274	583,200
13 Toledo, Ohio.....	59	18,027	907,300	2	744	35,000	4	4,528	318,500	9	3,311	215,000
14 Tonawanda, New York.....	19	5,696	287,000				5	2,973	200,000			
15 Vermillion, New York.....	6	5,051	198,000							1	1,601	90,000
16 Lake Ontario.....	131	15,859	676,300	4	553	32,500	32	1,155	155,900	3	2,906	174,000
17 Cape Vincent, New York.....	52	2,220	126,500	2	85	14,000	15	586	56,500	1	72	4,000
18 Charlotte, New York.....												
19 Chaumont, New York.....	1	309	6,000									
20 Hamlin, New York.....	1	175	3,000									
21 Henderson, New York.....	1	246	4,000									
22 Medina, New York.....	1	9	2,000									
23 Oswego, New York.....	42	8,842	402,000				7	225	68,500	2	2,834	170,000
24 Pultneyville, New York.....	1	80	1,500									
25 Rochester, New York.....	21	2,276	90,900	2	468	18,500	7	264	26,000			
26 Sacketts Harbor, New York.....	5	521	7,700				1	12	1,200			
27odus Point, New York.....	2	296	8,000				1	18	2,000			
28 Troy, New York.....	1	555	18,000									
29 Wilson, New York.....	2	280	5,000									
30 Youngstown, New York.....	1	50	1,700				1	50	1,700			
31 St. Lawrence river.....	43	12,830	754,500	3	877	58,000	12	393	36,500	6	8,827	568,000
32 Alexandria Bay, New York.....	3	37	5,000				3	37	5,000			
33 Clayton, New York.....	7	1,328	69,500	3	877	58,000	2	27	3,000			
34 Ogdensburg, New York.....	33	11,465	680,000				7	329	28,500	6	8,827	568,000

TRANSPORTATION ON THE GREAT LAKES.

297

CONSTRUCTION—Continued.

BY CLASSES, ETC.—Continued.

STEAMERS—continued.						SAIL AND UNRIGGED VESSELS.								
Tugs.			All other classes.			Schooners.			Lake barges.			All other classes.		
Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.	Num- ber.	Gross tonnage.	Valuation.
4	103	\$16,000	6	402	\$29,500	3	487	\$11,900	1	825	\$25,000			
2	66	10,500	1	15	3,000	2	235	3,500						
			1	9	1,000									
			6	99	22,000	3	649	13,700	1	538	28,000			
						13	5,442	119,500	1	910	35,000			
2	43	7,500				3	1,089	58,500	2	1,377	44,500			
									1	1,847	65,000			
1	56	5,000							1	621	16,000			
1	29	3,000				1	41	1,000						
5	232	26,000	3	57	10,500	17	3,567	85,000	5	1,405	16,000			
14	916	132,500	3	469	25,000	20	5,107	129,300	7	2,952	52,000			
7	127	23,000							7	2,596	64,000			
						3	1,060	57,000	2	1,490	51,000			
8	185	36,800	19	608	61,500	45	9,726	202,300	1	326	4,500	10	400	\$8,800
			6	143	19,500	12	1,058	24,600				10	276	7,900
						1	309	6,000						
						1	175	3,000						
						1	246	4,000						
8	185	36,800	1	9	2,000	18	5,393	111,800				2	16	400
			5	189	14,500	1	80	1,500						
						4	951	16,400	1	326	4,500			
			7	267	25,500	3	401	6,000				1	108	500
						1	278	6,000						
						1	555	18,000						
						2	280	5,000						
5	279	35,500	7	476	33,500	2	424	8,500	6	1,492	14,000	2	62	500
5	279	35,500	7	476	33,500	2	424	8,500	6	1,492	14,000	2	62	500

299

TABLE 3.—PERCENTAGES OF TONNAGE AND VALUATION, ETC.—Continued.

LAKE MICHIGAN.

LAKE ERIE.										
All classes.....	667	392,003	100.00	42.60	332,991	518,134	22,163,824	100.00	45.63	56
Steamers:										
Side-wheel passenger.....	10	2,221	0.57	8.15	1,505	2,482	144,000	0.65	5.54	65
Propellers carrying both passengers and freight.....	91	83,818	21.33	58.24	67,056	94,470	6,342,724	28.62	57.81	76
Propellers carrying freight only.....	166	202,224	51.47	51.99	167,518	241,707	12,065,700	54.44	51.48	60
Tugs.....	123	4,806	1.22	19.66	2,734	2,180	702,000	3.17	27.46	146
Ferry.....	5	284	0.07	6.04	189	229	19,000	0.09	3.22	67
Pleasure yachts.....	20	1,056	0.27	49.79	653	730	136,700	0.62	43.72	129
Pile drivers.....	14	242	0.06	97.98	145	74	49,500	0.22	92.52	205
Sand dredges.....	4	398	0.10	100.00	295	431	14,000	0.06	100.00	35
Sand boats.....	1	81	0.02	100.00	71	102	5,000	0.02	100.00	62
Fire boats.....	2	199	0.05	31.54	100	114	60,000	0.27	30.77	202
Steam lighters.....	4	392	0.10	100.00	368	339	14,000	0.06	100.00	36
Unclassified steam vessels.....	9	313	0.08	11.83	229	176	30,500	0.14	14.52	97
Sail and unrigged vessels:										
Schooners.....	148	61,014	15.53	33.15	58,099	110,486	1,645,200	7.42	39.01	27
Lake barges.....	67	35,772	9.11	25.85	33,950	64,464	933,000	4.21	26.94	26
Scows.....										
Sloops.....	2	66	0.02	6.38	62	118	2,200	0.01	10.30	33
Yawls.....	1	17		100.00	17	32	300		100.00	18

LAKE ONTARIO.

[illegible]

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 3.—PERCENTAGES OF TONNAGE AND VALUATION—Continued.

ST. LAWRENCE RIVER.

[illegible]

TRANSPORTATION ON THE GREAT LAKES.

301

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OCCUPATION BY CLASS GROUPS—NUMBER, GROSS AND NET TONNAGE, AND ESTIMATED CARRYING CAPACITY COMMERCIAL VALUE, AND VALUE PER GROSS TON OF ALL STEAMERS, SAILING VESSELS, AND UNRIGGED CRAFT; GROUPED BY CLASSES, AND ENTERED BY CLASS TOTALS FOR EACH OF THE LAKES AND ST. LAWRENCE RIVER.

LAKES AND RIVER.	Number.	Gross tonnage.	Net tonnage.	Estimated carrying capacity (tons).	Commercial valuation.	Valuation per gross ton.
Summary of entire lake fleet.....	2, 737	920, 294	776, 817	1, 248, 784	\$48, 580, 174	\$53

SIDE-WHEEL PASSENGER STEAMERS.

Total	62	27, 259	19, 465	27, 633	2, 600, 500	95
Lake Superior						
Lakes Huron and St. Clair	23	17, 729	12, 570	17, 828	1, 864, 500	105
Lake Michigan	22	5, 870	4, 501	6, 257	501, 500	85
Lake Erie	10	2, 221	1, 505	2, 482	144, 000	65
Lake Ontario	4	553	397	442	32, 500	59
St. Lawrence river	3	877	492	624	58, 000	66

PROPELLERS CARRYING BOTH PASSENGERS AND FREIGHT.

Total	303	143, 907	112, 585	157, 035	10, 971, 124	70
Lake Superior	20	12, 313	9, 176	11, 390	1, 091, 000	89
Lakes Huron and St. Clair	43	17, 972	13, 391	19, 656	1, 206, 500	72
Lake Michigan	96	28, 256	22, 044	30, 909	2, 048, 500	72
Lake Erie	91	83, 818	67, 056	94, 470	6, 342, 724	76
Lake Ontario	32	1, 155	685	482	155, 900	135
St. Lawrence river	12	393	233	128	36, 500	93

PROPELLERS CARRYING FREIGHT ONLY.

Total	433	388, 078	314, 875	453, 574	23, 438, 700	60
Lake Superior	15	13, 517	10, 686	14, 686	898, 500	60
Lakes Huron and St. Clair	138	104, 477	82, 692	120, 202	6, 221, 500	60
Lake Michigan	105	57, 027	44, 215	65, 613	3, 511, 000	62
Lake Erie	166	202, 224	167, 518	241, 707	12, 065, 700	60
Lake Ontario	3	2, 906	2, 209	3, 199	174, 000	60
St. Lawrence river	6	8, 827	7, 575	8, 187	568, 000	64

TUGS.

Total	489	24, 451	14, 292	14, 352	2, 556, 300	105
Lake Superior	67	2, 849	1, 607	1, 322	306, 300	108
Lakes Huron and St. Clair	102	8, 383	5, 008	6, 092	639, 600	76
Lake Michigan	184	7, 940	4, 649	4, 582	836, 100	105
Lake Erie	123	4, 806	2, 734	2, 180	702, 000	146
Lake Ontario	8	185	93	49	36, 800	199
St. Lawrence river	5	279	141	127	35, 500	127

FERRY.

Total	40	4, 702	2, 933	3, 819	498, 000	106
Lake Superior	6	365	265	310	23, 500	64
Lakes Huron and St. Clair	16	3, 436	2, 103	2, 939	410, 000	119
Lake Michigan	10	234	144	80	29, 500	126
Lake Erie	5	284	189	220	19, 000	67
Lake Ontario	1	109	95	137	2, 000	18
St. Lawrence river	2	274	137	154	14, 000	51

PLEASURE YACHTS.

Total	54	2, 121	1, 320	1, 128	312, 700	147
Lake Superior	4	123	81	41	17, 500	142
Lakes Huron and St. Clair	11	367	249	128	74, 000	202
Lake Michigan	4	163	109	113	26, 000	160
Lake Erie	20	1, 056	653	730	136, 700	129
Lake Ontario	13	339	192	98	51, 000	150
St. Lawrence river	2	73	36	18	7, 500	103

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OCCUPATION BY CLASS GROUPS—Continued.

PILE DRIVERS.

LAKES AND RIVER.	Number.	Gross tonnage.	Net tonnage.	Estimated carrying capacity (tons).	Commercial valuation.	Valuation per gross ton.
Total	15	247	150	77	\$53,500	\$217
Lake Superior						
Lakes Huron and St. Clair	1	5	5	3	4,000	800
Lake Michigan						
Lake Erie	14	242	145	74	49,500	205
Lake Ontario						
St. Lawrence river						

SAND DREDGES.

Total	4	398	295	431	14,000	35
Lake Superior						
Lakes Huron and St. Clair						
Lake Michigan						
Lake Erie	4	398	295	431	14,000	35
Lake Ontario						
St. Lawrence river						

SAND BOATS.

Total	1	81	71	102	5,000	62
Lake Superior						
Lakes Huron and St. Clair						
Lake Michigan						
Lake Erie	1	81	71	102	5,000	62
Lake Ontario						
St. Lawrence river						

FIRE BOATS.

Total	7	631	319	354	195,000	309
Lake Superior						
Lakes Huron and St. Clair						
Lake Michigan	5	432	219	240	135,000	313
Lake Erie	2	199	100	114	60,000	302
Lake Ontario						
St. Lawrence river						

STEAM LIGHTERS.

Total	4	392	368	339	14,000	36
Lake Superior						
Lakes Huron and St. Clair						
Lake Michigan						
Lake Erie	4	392	368	339	14,000	36
Lake Ontario						
St. Lawrence river						

UNCLASSIFIED STEAM VESSELS.

Total	55	2,646	1,913	1,895	210,000	79
Lake Superior	5	90	50	26	7,500	85
Lakes Huron and St. Clair	6	94	50	27	11,500	122
Lake Michigan	27	1,860	1,304	1,569	140,000	75
Lake Erie	9	313	229	176	30,500	97
Lake Ontario	5	160	107	55	8,500	53
St. Lawrence river	3	129	83	42	12,000	93

SCHOONERS.

Total	917	184,029	174,869	334,360	4,217,200	23
Lake Superior	31	2,784	2,069	5,143	74,200	27
Lakes Huron and St. Clair	203	33,639	31,836	61,962	805,500	24
Lake Michigan	488	76,442	72,630	138,463	1,481,500	19
Lake Erie	148	61,014	58,099	110,486	1,545,200	27
Lake Ontario	45	9,726	9,232	17,521	202,300	21
St. Lawrence river	2	424	403	785	8,500	29

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 4.—OCCUPATION BY CLASS GROUPS—Continued.

LAKE BARGES.

LAKES AND RIVER.	Number.	Gross tonnage.	Net tonnage.	Estimated carrying capacity (tons).	Commercial valuation.	Valuation per gross ton.
Total	301	138,464	131,407	249,847	\$3,463,500	\$25
Lake Superior	10	7,612	7,388	14,103	345,000	45
Lakes Huron and St. Clair	171	75,849	71,787	136,534	1,772,500	23
Lake Michigan	46	17,353	16,534	31,397	394,500	23
Lake Erie	67	35,772	33,950	64,464	933,000	26
Lake Ontario	1	326	310	589	4,500	14
St. Lawrence river	6	1,492	1,438	2,760	14,000	9

SCOWS.

Total	7	996	952	1,833	9,000	9
Lake Superior	2	402	382	732	1,500	4
Lakes Huron and St. Clair	4	496	467	906	7,000	14
Lake Erie	1	108	103	195	500	5
Lake Ontario						
St. Lawrence river						

SLOOPS.

Total	44	1,035	186	1,943	21,350	21
Lake Superior	10	480	455	869	6,550	14
Lakes Huron and St. Clair	12	135	131	335	3,800	28
Lake Michigan	2	66	62	118	2,200	33
Lake Erie	18	292	276	505	8,300	28
Lake Ontario	2	62	62	117	500	8
St. Lawrence river						

YAWLS.

Total	1	17	17	32	300	18
Lake Superior						
Lakes Huron and St. Clair						
Lake Michigan						
Lake Erie	1	17	17	32	300	18
Lake Ontario						
St. Lawrence river						

STATISTICS OF TRANSPORTATION.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY LOCALITIES—MATERIAL, NUMBER, TONNAGE, VALUE, AND AVERAGES OF VALUE AND TONNAGE OF ALL THE LAKE FLEET ENTERED FOR EACH PORT, WITH TOTALS FOR EACH LAKE AND ST. LAWRENCE RIVER.

PORTS.	Material.	Number.	Gross Tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Total		2,737	920,294	\$48,580,174	\$53	336
Lake Superior		167	39,653	2,763,500	70	237
Ashland	Wood	1	73	5,000	68	73
Baraga	do	3	1,319	44,000	33	440
Bayfield	do	1	291	6,000	21	291
Duluth	Steel	3	2,684	175,000	65	895
Do	Iron	2	98	20,000	204	49
Do	Composite	1	37	8,000	216	37
Do	Wood	33	1,567	135,300	86	47
Marquette	Steel	4	9,904	900,000	91	2,476
Do	Wood	107	10,855	632,200	58	101
Pequaming	do	4	2,082	124,000	60	521
Republic	do	4	5,314	239,000	45	1,329
Sault Ste. Marie	do	2	477	25,000	52	239
Superior	Steel	2	4,952	450,000	91	2,476
Lakes Huron and St. Clair		726	262,833	13,107,650	50	362
Algonac	Wood	6	2,345	46,000	20	391
Alpena	Steel	1	1,117	100,000	90	1,117
Do	Wood	8	3,867	66,400	17	483
Bay city	Iron	1	306	25,000	82	306
Do	Wood	55	30,870	1,121,100	36	561
Caseville	do	1	298	4,000	13	798
Cheboygan	do	2	83	7,500	90	42
Detroit	Steel	3	5,354	865,000	150	1,785
Do	Iron	7	6,096	706,000	116	870
Do	Composite	7	13,175	1,100,000	83	1,882
Do	Wood	258	105,149	4,936,800	47	408
East China	do	2	1,449	67,000	46	725
East Saginaw	do	30	13,261	419,600	32	442
Marine	do	23	9,875	230,800	23	429
Mount Clemens	do	2	504	1,500	3	252
New Baltimore	do	2	147	11,000	75	74
Oscoda	do	3	1,289	17,000	13	430
Port Huron	Iron	1	161	12,000	75	161
Do	Composite	1	58	15,000	259	58
Do	Wood	291	61,263	3,226,950	53	211
Saginaw	do	10	2,829	88,500	31	283
St. Clair	do	12	3,343	100,500	30	279
Lake Michigan		1,003	196,216	9,114,400	46	196
Benton Harbor	Wood	3	699	39,500	57	233
Charlevoix	do	6	488	12,800	26	81
Chicago	Steel	2	3,481	335,000	96	1,741
Do	Iron	2	365	30,000	82	183
Do	Wood	335	67,414	2,723,350	40	201
Escanaba	do	5	1,615	52,000	32	323
Fort Howard	do	2	222	5,500	25	111
Frankfort	do	1	7	1,000	143	7
Grand Haven	Steel	1	45	7,000	156	45
Do	Iron	5	2,534	321,000	127	507
Do	Wood	219	19,729	1,280,650	65	90
Green Bay	do	10	3,300	115,000	35	330
Holland	do	2	220	3,000	14	110
Kenosha	do	19	7,378	358,900	49	388
Kewaunee	do	1	160	3,000	19	160
Ludington	do	4	752	12,000	16	188
Manistee	do	11	2,732	54,000	20	248
Manitowoc	do	15	1,775	34,600	19	118
Menominee	do	1	277	2,500	9	277
Milwaukee	Iron	3	1,070	82,000	77	357
Do	Wood	256	60,624	3,123,000	52	237
Montague	do	2	217	4,000	18	103
Muskegon	do	17	3,088	63,100	20	182
Northport	do	1	63	7,000	111	63
Onkama	do	1	146	3,500	24	146
Pentwater	do	2	280	4,500	17	139
Peshigo	do	3	1,704	52,500	31	568
Petoskey	do	1	123	12,000	98	121
Racine	do	26	6,932	145,400	21	257
St. James	do	1	81	1,500	19	81
St. Joseph	do	2	164	1,000	6	82
Saugatuck	do	3	647	33,500	52	216
Sheboygan	do	25	4,115	79,900	19	165
South Haven	do	4	374	5,100	14	94

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY LOCALITIES—Continued.

PORTS.	Material.	Number.	Gross tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Lake Michigan—Continued.						
Spring Lake	Wood	2	345	\$8,000	\$23	172
Sturgeon Bay	do	2	550	5,000	9	275
Suttons Bay	do	1	232	3,000	13	232
Traverse	do	1	336	20,000	60	336
Troy	do	1	301	7,000	23	301
Waukegan	do	2	1,296	58,000	45	648
Waukeaha	do	1	48	600	13	48
Whitehall	do	2	307	4,000	13	154
Lake Erie		667	392,903	22,163,824	56	589
Ashtabula	Wood	4	175	27,000	154	44
Avon	do	1	264	5,000	19	264
Buffalo	Steel	14	29,853	2,950,000	99	2,132
Do	Iron	12	8,779	753,224	86	732
Do	Composite	1	1,399	90,000	64	1,399
Do	Wood	177	88,829	4,441,900	50	502
Cleveland	Steel	8	13,839	1,252,000	90	1,730
Do	Iron	3	6,147	515,000	84	2,049
Do	Wood	208	143,241	7,035,800	49	689
Dunkirk	do	3	522	29,000	56	174
Erie	Steel	1	2,500	225,000	90	2,500
Do	Iron	7	9,886	711,000	72	1,412
Do	Wood	29	17,068	823,900	48	589
Fairport	do	5	316	17,000	54	63
Fremont	do	2	20	1,800	90	10
Gratwick	do	1	538	28,000	52	538
Huron	do	12	5,091	274,700	54	424
Lorain	Steel	1	1,759	150,000	85	1,759
Do	Wood	17	6,862	171,500	25	404
Milan	do	6	6,824	323,500	47	1,137
Norwalk	do	2	1,344	51,000	38	672
Port Clinton	do	1	56	5,000	89	56
Put in Bay	do	1	168	6,000	36	168
Suspension Bridge	do	3	346	19,000	55	115
Sandusky	do	64	18,303	865,200	47	286
Toledo	Iron	1	173	17,000	98	173
Do	Wood	58	17,854	880,300	50	308
Tonawanda	do	19	5,696	287,000	50	300
Vermilion	do	6	5,051	198,000	39	842
Lake Ontario		131	15,859	676,300	43	121
Cape Vincent	Wood	52	2,220	126,500	57	43
Charlotte	do	1	309	6,000	19	309
Chaumont	do	1	175	3,000	17	175
Hamlin	do	1	246	4,000	16	246
Henderson	do	1	9	2,000	222	9
Medina	do	42	8,842	402,000	45	211
Oswego	do	1	80	1,500	19	80
Pultneyville	do	1	87	15,000	172	87
Rochester	Composite	20	2,189	75,900	35	109
Do	Wood	5	521	7,700	15	104
Sacketts Harbor	do	2	296	8,000	27	148
Sodus Point	do	1	555	18,000	32	555
Troy	do	2	280	5,000	18	140
Wilson	do	1	50	1,700	34	50
Youngstown	do	1	50	1,700	34	50
St. Lawrence river		43	12,830	754,500	59	298
Alexandria Bay	Wood	3	37	5,000	135	12
Clayton	Iron	1	313	33,000	105	313
Do	Wood	6	1,015	36,500	36	169
Ogdensburg	do	33	11,465	680,000	59	347

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY MATERIALS—MATERIAL, NUMBER, TONNAGE, VALUE, AND AVERAGES OF VALUE AND TONNAGE OF ALL THE LAKE FLEET ENTERED BY EACH PORT, BUT GROUPED TO SHOW THE TOTALS FOR EACH MATERIAL OF CONSTRUCTION.

STEEL.						WOOD.					
PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	Average tonnage.	PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Total	40	75,488	\$7,349,000	\$97	1,887	Total	2,641	794,128	\$36,777,950	\$46	301
Lake Superior	9	17,540	1,525,000	87	1,949	Lake Superior	155	21,978	1,210,506	55	142
Duluth	3	2,684	175,000	65	895	Ashland	1	73	5,000	68	73
Marquette	4	9,904	900,000	91	2,476	Baraga	3	1,319	44,000	33	440
Superior	2	4,952	450,000	91	2,476	Bayfield	1	291	6,000	21	291
Lakes Huron and St. Clair	4	6,471	905,000	140	1,618	Duluth	33	1,567	135,300	86	47
Alpena	1	1,117	100,000	90	1,117	Marquette	107	10,855	632,200	58	101
Detroit	3	5,354	805,000	150	1,785	Pequaming	4	2,082	124,000	60	521
Lake Michigan	3	3,526	342,000	97	1,175	Republic	4	5,314	239,000	45	1,329
Chicago	2	3,481	335,000	96	1,741	Sault Ste. Marie	2	477	25,000	52	239
Grand Haven	1	45	7,000	156	45	Lakes Huron and St. Clair	705	236,572	10,344,650	44	336
Lake Erie	24	47,951	4,577,000	95	1,998	Algonac	6	2,345	46,000	20	391
Buffalo	14	29,853	2,950,000	99	2,132	Alpena	8	3,867	66,400	17	443
Cleveland	8	13,839	1,252,000	90	1,730	Bay city	55	30,870	1,121,100	36	561
Erie	1	2,500	225,000	90	2,500	Cassville	1	298	4,000	13	298
Lorain	1	1,759	150,000	85	1,759	Cheboygan	2	83	7,500	90	42
IRON.						Detroit	258	105,149	4,936,800	47	406
Total	45	35,922	3,225,224	90	798	East China	2	1,449	67,000	46	725
Lake Superior	2	98	20,000	204	49	East Saginaw	30	13,261	419,800	32	443
Duluth	2	98	20,000	204	49	Marine	23	9,875	230,800	23	429
Lakes Huron and St. Clair	9	6,557	743,000	113	729	Mount Clemens	2	504	1,500	3	252
Bay city	1	306	25,000	82	306	New Baltimore	2	147	11,000	75	74
Detroit	7	6,090	706,000	116	870	Oscoda	3	1,289	17,000	13	430
Port Huron	1	161	12,000	75	161	Port Huron	291	61,263	3,226,950	53	211
Lake Michigan	10	3,969	433,000	109	397	Saginaw	10	2,829	88,500	31	283
Chicago	2	365	30,000	82	183	St. Clair	12	3,343	100,500	30	279
Grand Haven	5	2,534	321,000	127	507	Lake Michigan	990	188,721	8,339,400	44	190
Milwaukee	3	1,070	82,000	77	357	Benton Harbor	3	699	39,500	57	233
Lake Erie	23	24,985	1,996,224	80	1,086	Charlevoix	6	498	12,800	26	81
Buffalo	12	8,779	753,224	86	732	Chicago	335	67,414	2,723,350	40	201
Cleveland	3	6,147	515,000	84	2,049	Escanaba	5	1,615	52,000	32	323
Erie	7	9,886	711,000	72	1,412	Fort Howard	2	222	5,500	25	111
Toledo	1	173	17,000	98	173	Frankfort	1	7	1,000	143	7
St. Lawrence river	1	313	33,000	105	313	Grand Haven	219	19,729	1,280,650	65	90
Clayton	1	313	33,000	105	313	Green Bay	10	3,300	115,000	35	330
COMPOSITE.						Holland	2	220	3,000	14	110
Total	11	14,756	1,228,000	83	1,341	Kenosha	19	7,378	358,900	49	388
Lake Superior	1	37	8,000	216	37	Kewaunee	1	160	3,000	19	160
Duluth	1	37	8,000	216	37	Ludington	4	752	12,000	16	188
Lakes Huron and St. Clair	8	13,233	1,115,000	84	1,654	Manistee	11	2,732	54,000	20	248
Detroit	7	13,175	1,100,000	83	1,882	Manitowoc	15	1,775	34,600	19	118
Port Huron	1	58	15,000	259	58	Menominee	1	277	2,500	9	277
Lake Erie	1	1,399	90,000	64	1,399	Milwaukee	256	60,624	3,123,000	52	237
Buffalo	1	1,399	90,000	64	1,399	Montague	2	217	4,000	18	109
Lake Ontario	1	87	15,000	172	87	Muskegon	17	3,088	63,100	20	182
Rochester	1	87	15,000	172	87	Northport	1	63	7,000	111	63
						Onokana	1	146	3,500	24	146
						Pewaukee	2	260	4,500	17	120
						Peshigo	3	1,704	52,500	31	568
						Petoskey	1	123	12,000	98	123
						Racine	26	6,932	145,400	21	267
						St. James	1	81	1,500	19	81
						St. Joseph	2	184	1,000	6	82
						Saugatuck	3	647	33,500	52	216
						Sheboygan	25	4,115	79,900	19	165
						South Haven	4	374	5,100	14	94
						Spring Lake	2	345	8,000	23	172
						Sturgeon Bay	2	550	5,000	9	275
						Suttons Bay	1	232	3,000	13	232
						Traverse	1	336	20,000	60	336
						Troy	1	301	7,000	23	301
						Waukegan	2	1,296	58,000	45	646
						Waukesha	1	48	600	13	48
						Whitehall	2	307	4,000	13	154
						Lake Erie and Niagara river	619	318,568	15,500,000	49	515
						Ashtabula	4	175	27,000	154	44
						Avon	1	264	5,000	19	264
						Buffalo	177	88,829	4,441,900	50	502
						Cleveland	208	143,241	7,035,800	49	689
						Dunkirk	3	522	20,000	56	174
						Erie	29	17,068	823,900	48	580
						Fairport	5	316	17,000	54	63
						Fremont	2	20	1,800	90	10
						Gratwick	1	538	28,000	52	538
						Huron	12	5,091	274,700	54	424
						Lorain	17	6,862	171,500	25	404
						Milan	6	6,824	323,500	47	1,137
						Norwalk	2	1,344	51,000	38	672

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 6.—CONSTRUCTION BY MATERIALS—Continued.

WOOD—Continued.						WOOD—Continued.					
PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	Average tonnage.	PORTS.	Number.	Tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Lake Erie and Niagara river—Continued.						Lake Ontario—Continued.					
Port Clinton.....	1	56	\$5,000	\$89	56	Sodus Point.....	2	296	\$8,000	\$27	148
Put in Bay.....	1	168	6,000	36	168	Troy.....	1	555	18,000	32	555
Suspension Bridge.....	3	346	19,000	55	115	Wilson.....	2	280	5,000	18	140
Sandusky.....	64	18,303	865,200	47	286	Youngstown.....	1	50	1,700	34	50
Toledo.....	58	17,854	890,300	50	308	St. Lawrence river.....	42	12,517	721,500	58	298
Tonawanda.....	19	5,696	287,000	50	300	Alexandria Bay.....	3	37	5,000	135	12
Vermilion.....	6	5,051	198,000	39	842	Clayton.....	6	1,015	36,500	36	169
Lake Ontario.....	130	15,772	661,300	42	121	Ogdensburg.....	33	11,465	680,000	59	347
Cape Vincent.....	52	2,220	126,500	57	43	RECAPITULATION—ALL MATERIALS.					
Charlotte.....	1	309	6,000	19	309	Total.....	2,737	920,294	48,580,174	53	336
Chaumont.....	1	175	3,000	17	175	Steel.....	40	75,488	7,349,000	97	1,887
Hamlin.....	1	246	4,000	16	246	Iron.....	45	35,922	3,225,224	90	708
Medina.....	1	9	2,000	222	9	Composite.....	11	14,756	1,228,000	83	1,341
Oswego.....	42	8,642	402,000	45	211	Wood.....	2,641	794,128	36,777,950	46	301
Pultneyville.....	1	80	1,500	19	80						
Rochester.....	20	2,189	75,900	35	109						
Sacketts Harbor.....	5	521	7,700	15	104						

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS.

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—RECEIPTS, SHIPMENTS, AND TOTAL MOVEMENT OF FREIGHT BY LAKE AND RIVER TOTALS, CLASSED BY PRINCIPAL PRODUCTS, TOGETHER WITH CERTAIN PERCENTAGES OF TRAFFIC APPLIED TO LOCALITIES AND COMMODITIES.

SUMMARY FOR ALL LAKES AND ST. LAWRENCE RIVER.

COMMODITIES.	TOTAL MOVEMENT.			RECEIPTS.			SHIPMENTS.			EXCESS OF RECEIPTS OVER SHIPMENTS.				EXCESS OF SHIPMENTS OVER RECEIPTS.		
	Amount in tons.	Per cent of total traffic.	Per cent of total commodity.	Amount in tons.	Per cent of total traffic.	Per cent of total commodity.	Amount in tons.	Per cent of total traffic.	Per cent of total commodity.	Amount in tons.	Per cent of commodity.	Per cent of class.	Per cent of aggregate.	Amount in tons.	Per cent of commodity.	Per cent of class.
Total	51,203,106	100.00	100	25,936,132	100.00	100	25,266,974	100.00	100	669,158			2.58			
Class I.—Products of agriculture.	8,449,806	16.50	100	4,041,738	15.58	100	4,408,068	17.45	100					366,330		8.31
Wheat.....	1,888,312	3.69	100	919,162	3.54	100	969,150	3.84	100					49,988	5.16	
Corn.....	3,513,515	6.86	100	1,583,901	6.11	100	1,929,614	7.64	100					345,713	17.92	
Other grains.....	980,514	1.92	100	477,397	1.84	100	503,117	1.99	100					25,720	5.11	
Mill products.....	1,886,189	3.68	100	992,066	3.82	100	894,123	3.54	100	97,943	9.87					
All other farm products.....	181,276	0.35	100	69,212	0.27	100	112,064	0.44	100					42,852	38.24	
Class II.—Products of mines and quarries.	27,763,175	54.22	100	13,454,189	51.88	100	14,308,989	56.63	100					854,800		5.97
Coal and coke.....	11,268,270	22.00	100	5,162,471	19.91	100	8,105,799	24.17	100					943,328	15.45	
Iron ore.....	15,303,180	29.89	100	7,626,073	29.40	100	7,677,107	30.38	100					51,034	0.66	
Stone(all kinds).....	547,229	1.07	100	311,015	1.20	100	236,214	0.93	100	74,801	24.05					
Salt.....	549,350	1.07	100	296,513	1.14	100	252,837	1.00	100	43,676	14.72					
Other products of mines and quarries.....	95,149	0.19	100	58,117	0.23	100	37,032	0.15	100	21,085	36.28					
Class III.—Other products.	12,331,236	24.09	100	6,921,985	26.69	100	5,409,251	21.41	100	1,512,734		21.85				
Animal products.....	125,581	0.25	100	64,728	0.25	100	60,853	0.24	100	3,875	5.99					
Lumber.....	12,205,655	23.84	100	6,857,257	26.44	100	5,348,398	21.17	100	1,508,859	22.00					
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	2,658,886	5.19	100	1,518,220	5.85	100	1,140,666	4.51	100	377,554	24.87					

LAKE SUPERIOR.

COMMODITIES.	TOTAL MOVEMENT.			RECEIPTS.			SHIPMENTS.		
	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.
Total.....	7,925,930	100.00	15.48	2,491,149	100.00	9.60	5,434,781	100.00	21.51
Class I.—Products of agriculture	663,930	8.38	7.86	1,886	0.08	0.05	662,044	12.18	15.02
Wheat.....	399,355	5.04	21.15				399,355	7.35	41.21
Corn.....	55,134	0.70	1.57	22			55,112	1.01	2.86
Other grains.....	1,846	0.02	0.19	464	0.02	0.10	1,382	0.02	0.27
Mill products.....	205,720	2.60	10.91	493	0.02	0.05	205,227	3.78	22.95
All other farm products.....	1,875	0.02	1.03	907	0.04	1.31	968	0.02	0.86
Class II.—Products of mines and quarries	6,072,985	76.62	21.87	1,855,072	74.47	13.79	4,217,913	77.61	29.46
Coal and coke.....	1,780,750	22.47	15.80	1,754,675	70.44	33.99	26,075	0.48	0.43
Iron ore.....	4,151,748	52.38	27.13	10,091	0.43	0.14	4,141,057	76.20	53.94
Stone (all kinds).....	87,276	1.10	15.95	69,587	2.79	22.37	17,689	0.32	7.49
Salt.....	20,142	0.25	3.67	20,119	0.81	6.78	23		0.01
Other products of mines and quarries.....	33,069	0.42	34.76				33,069	0.61	89.30
Class III.—Other products.....	477,981	6.03	3.88	8,281	0.33	0.12	469,700	8.64	8.68
Animal products.....	1,914	0.02	1.52	371	0.01	0.57	1,543	0.03	2.53
Lumber.....	476,067	6.01	3.90	7,910	0.32	0.12	468,157	8.61	8.75
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	711,034	8.97	26.74	625,910	25.12	41.23	85,124	1.57	7.46

TRANSPORTATION ON THE GREAT LAKES.

309

TRAFFIC OPERATIONS—Continued.

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—Continued.

LAKES HURON AND ST. CLAIR.

COMMODITIES.	TOTAL MOVEMENT.			RECEIPTS.			SHIPMENTS.		
	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.
Total	3,373,807	100.00	6.59	1,029,356	100.00	3.97	2,344,451	100.00	9.27
Class I.—Products of agriculture	195,619	5.80	2.31	68,553	6.66	1.69	127,066	5.42	2.88
Wheat	110,663	3.28	5.86	29,246	2.84	3.18	81,417	3.47	8.40
Corn	38,448	1.14	1.09	10,688	1.04	0.68	27,760	1.18	1.44
Other grains	22,479	0.67	2.29	16,275	1.58	3.41	6,204	0.27	1.23
Mill products	16,792	0.50	0.89	11,963	1.16	1.21	4,829	0.21	0.54
All other farm products	7,237	0.21	3.99	381	0.04	0.55	6,856	0.29	6.12
Class II.—Products of mines and quarries	665,583	19.73	2.40	532,175	51.70	3.95	133,408	5.69	0.93
Coal and coke	376,321	11.15	3.34	362,747	35.24	7.03	13,574	0.58	0.22
Iron ore	180,090	5.34	1.18	117,639	11.43	1.54	62,451	2.66	0.81
Stone (all kinds)	25,975	0.77	4.75	25,975	2.52	8.35			
Salt	78,523	2.33	14.30	25,043	2.43	8.45	53,480	2.28	21.15
Other products of mines and quarries	4,674	0.14	4.91	771	0.08	1.33	2,903	0.17	10.54
Class III.—Other products	2,426,660	71.92	19.68	390,434	37.93	5.69	2,036,226	86.85	37.65
Animal products	175		0.14				175		0.29
Lumber	2,426,485	71.92	19.88	390,434	37.93	5.69	2,036,051	86.85	38.07
Class IV.—Manufactures, miscellaneous merchandise, and other commodities	85,945	2.55	3.23	38,194	3.71	2.52	47,751	2.04	4.19

LAKE MICHIGAN.

Total	18,571,258	100.00	36.27	8,480,892	100.00	32.70	10,090,366	100.00	39.94
Class I.—Products of agriculture	3,480,217	18.74	41.19	152,793	1.79	3.78	3,327,424	32.98	75.48
Wheat	352,019	1.89	18.64	4,553	0.05	0.50	347,466	3.44	35.85
Corn	1,778,318	9.58	50.61	6,209	0.07	0.39	1,772,109	17.56	91.84
Other grains	500,596	2.70	51.05	10,625	0.12	2.22	489,971	4.86	97.39
Mill products	738,833	3.98	39.17	118,423	1.40	11.94	620,410	6.15	69.39
All other farm products	110,451	0.59	60.93	12,963	0.15	18.76	97,466	0.97	86.98
Class II.—Products of mines and quarries	7,784,066	41.91	28.04	4,151,379	48.95	30.85	3,632,687	35.99	25.39
Coal and coke	2,865,278	15.43	25.43	2,865,021	33.78	55.50	257		
Iron ore	4,451,577	23.97	29.09	1,004,630	11.85	13.17	3,446,947	34.16	44.90
Stone (all kinds)	63,410	0.34	11.59	51,944	0.61	16.70	11,466	0.11	4.86
Salt	399,539	2.15	72.73	225,582	2.66	76.08	173,957	1.72	68.80
Other products of mines and quarries	4,262	0.02	4.48	4,202	0.05	7.23	60		0.16
Class III.—Other products	6,447,442	34.72	52.28	3,552,071	41.89	51.32	2,895,371	28.70	53.53
Animal products	62,283	0.34	49.60	3,148	0.04	4.86	59,135	0.59	97.18
Lumber	6,385,159	34.38	52.31	3,548,923	41.85	51.75	2,836,236	28.11	53.03
Class IV.—Manufactures, miscellaneous merchandise, and other commodities	859,533	4.63	32.33	624,640	7.37	41.14	234,884	2.33	20.59

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—Continued.

LAKE ERIE.

COMMODITIES.	TOTAL MOVEMENT.			RECEIPTS.			SHIPMENTS.		
	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.
Total	19,343,875	100.00	37.78	12,957,483	100.00	49.96	6,386,392	100.00	25.28
Class I.—Products of agriculture.....	3,735,845	19.31	44.21	3,450,723	26.63	85.38	285,122	4.46	6.47
Wheat	978,733	5.06	51.83	837,821	6.47	91.15	140,912	2.20	14.54
Corn	1,493,145	7.72	42.50	1,418,017	10.95	89.56	74,528	1.17	3.86
Other grains	336,684	1.74	34.34	331,124	2.55	89.36	5,560	0.09	1.11
Mill products	878,067	4.54	46.55	814,410	6.28	82.09	63,657	1.00	7.12
All other farm products	49,216	0.25	27.15	48,751	0.38	70.44	465		0.41
Class II.—Products of mines and quarries.	12,276,929	63.47	44.22	6,826,175	52.68	50.74	5,450,754	85.35	38.09
Coal and coke	5,294,047	27.37	46.98	97,865	0.75	1.89	5,196,182	81.36	85.11
Iron ore	6,517,162	33.69	42.58	6,490,518	50.09	85.11	26,644	0.42	0.35
Stone (all kinds)	364,380	1.89	66.58	161,779	1.25	52.02	202,601	3.17	85.77
Salt	50,988	0.26	9.28	25,661	0.20	8.65	25,327	0.40	10.02
Other products of mines and quarries.	50,352	0.26	52.92	50,352	0.39	86.64			
Class III.—Other products.....	2,510,000	12.98	20.36	2,504,400	19.33	36.18	6,200	0.10	0.12
Animal products	59,820	0.31	47.63	59,820	0.46	92.42			
Lumber	2,450,780	12.67	20.08	2,444,580	18.87	35.65	6,200	0.10	0.12
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	820,501	4.24	30.86	176,185	1.36	11.60	644,316	10.09	56.49

LAKE ONTARIO.

Total	1,256,947	100.00	2.45	485,220	100.00	1.87	771,727	100.00	3.05
Class I.—Products of agriculture.....	131,046	10.43	1.55	130,246	26.84	3.22	800	0.11	0.02
Wheat	20,483	1.63	1.09	20,483	4.22	2.23			
Corn	16,439	1.31	0.47	16,438	3.39	1.04	1		
Other grains	89,178	7.10	9.10	89,178	18.38	18.68			
Mill products	7			7					
All other farm products	4,939	0.39	2.73	4,140	0.85	5.98	799	0.11	0.71
Class II.—Products of mines and quarries.	773,652	61.55	2.79	9,239	1.91	0.07	764,413	99.05	5.34
Coal and coke	771,573	61.38	6.85	7,218	1.49	0.14	764,355	99.05	12.52
Iron ore									
Stone (all kinds)	1,738	0.14	0.32	1,730	0.36	0.56	8		
Salt	129	0.01	0.02	79	0.02	0.03	50		0.02
Other products of mines and quarries.	212	0.02	0.22	212	0.04	0.36			
Class III.—Other products.....	320,843	25.52	2.60	320,831	66.12	4.63	12		
Animal products	601	0.05	0.48	601	0.12	0.93			
Lumber	320,242	25.47	2.62	320,230	66.00	4.67	12		
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	31,406	2.50	1.18	24,904	5.13	1.64	6,502	0.84	0.57

TRAFFIC OPERATIONS—Continued.

TABLE 7.—FREIGHT MOVEMENT IN GENERAL—Continued.

ST. LAWRENCE RIVER.

COMMODITIES.	TOTAL MOVEMENT.			RECEIPTS.			SHIPMENTS.		
	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.	Amount in tons.	Per cent of total lake traffic.	Per cent of total commodity traffic on the Great Lakes.
Total	731,289	100.00	1.43	492,032	100.00	1.90	239,257	100.00	0.95
Class I.—Products of agriculture	243,149	33.25	2.88	237,537	48.28	5.88	5,612	2.34	0.13
Wheat	27,059	3.70	1.43	27,059	5.50	2.94			
Corn	132,031	18.05	3.76	131,927	26.81	8.33	104	0.04	
Other grains	29,731	4.07	3.03	29,731	6.04	6.23			
Mill products	46,770	6.40	2.48	46,770	9.51	4.71			
All other farm products	7,558	1.03	4.17	2,050	0.42	2.96	5,508	2.30	4.92
Class II.—Products of mines and quarries	189,963	25.98	0.68	80,149	16.29	0.60	109,814	45.90	0.77
Coal and coke	180,301	24.66	1.60	74,945	15.23	1.45	105,356	44.04	1.72
Iron ore	2,603	0.36	0.02	2,595	0.53	0.04	8		
Stone (all kinds)	4,450	0.61	0.81				4,450	1.86	1.88
Salt	29			29		0.01			
Other products of mines and quarries	2,580	0.35	2.71	2,580	0.53	4.44			
Class III.—Other products	147,710	20.20	1.20	145,968	29.66	2.11	1,742	0.73	0.03
Animal products	788	0.11	0.63	788	0.16	1.22			
Lumber	146,922	20.09	1.21	145,180	29.50	2.12	1,742	0.73	0.03
Class IV.—Manufactures, miscellaneous merchandise, and other commodities	150,467	20.57	5.66	28,378	5.77	1.87	122,089	51.03	10.70

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—RECEIPTS, SHIPMENTS, AND TOTAL TRAFFIC MOVEMENT, GROUPED ACCORDING TO THE 13 PRINCIPAL PRODUCTS AND ALLOTTED TO THE 31 PRINCIPAL PORTS, TOGETHER WITH CERTAIN PERCENTAGES OF TRAFFIC APPLIED TO COMMODITIES, AND THE TOTAL FREIGHT MOVEMENT.

TOTAL OF ALL PRODUCTS.

PORTS.	TOTAL MOVEMENT.			RECEIPTS.			SHIPMENTS.		
	Amount in tons.	Per cent of total commodity traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total commodity traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total commodity traffic.	Per cent of total port traffic.
Total.....	51,203,106	100.00	100	25,936,132	100.00	100	25,266,974	100.00	100
Chicago (a).....	7,984,038	15.59	100	5,069,973	19.55	100	2,914,065	11.53	100
Buffalo.....	6,730,137	13.14	100	4,046,144	15.60	100	2,683,993	10.62	100
Escanaba.....	3,626,390	7.08	100	195,558	0.75	100	3,430,832	13.58	100
Cleveland.....	3,621,570	7.07	100	2,737,708	10.56	100	883,862	3.50	100
Ashtabula.....	2,695,180	5.26	100	2,205,595	8.50	100	489,585	1.94	100
Ashland.....	2,247,242	4.39	100	467,358	1.88	100	1,759,884	6.97	100
Milwaukee.....	1,935,808	3.78	100	1,584,254	6.11	100	351,554	1.39	100
Marquette.....	1,710,885	3.34	100	143,346	0.55	100	1,567,539	6.20	100
Toledo.....	1,436,991	2.81	100	506,351	1.95	100	930,640	3.68	100
Erie.....	1,271,988	2.48	100	773,030	2.98	100	498,958	1.97	100
Superior.....	1,180,297	2.31	100	875,692	3.38	100	304,605	1.21	100
Duluth.....	1,114,048	2.18	100	983,162	2.63	100	430,886	1.71	100
Tonawanda.....	1,046,895	2.04	100	1,046,895	4.04	100			
Muskegon.....	1,002,743	1.96	100	151,303	0.58	100	851,440	3.37	100
Fairport.....	998,459	1.95	100	939,021	3.62	100	59,438	0.24	100
Two Harbors.....	936,541	1.83	100				936,541	3.71	100
Detroit.....	764,553	1.49	100	615,750	2.37	100	148,803	0.59	100
Oswego.....	691,118	1.35	100	402,847	1.55	100	288,271	1.14	100
Ogdensburg.....	662,904	1.30	100	470,044	1.81	100	192,860	0.76	100
Manistee.....	629,910	1.23	100	28,096	0.11	100	601,814	2.38	100
Ludington.....	627,627	1.23	100	276,229	1.06	100	351,398	1.39	100
Lorain.....	620,773	1.21	100	346,899	1.34	100	273,874	1.08	100
Sandusky.....	602,403	1.18	100	305,029	1.18	100	297,374	1.18	100
Bay city.....	553,219	1.08	100	66,246	0.26	100	486,973	1.93	100
Oscoda.....	490,413	0.96	100				490,413	1.94	100
Alpena.....	385,868	0.76	100	11,960	0.05	100	374,899	1.48	100
Charlotte.....	368,361	0.72	100	18,318	0.07	100	350,043	1.39	100
Marinette.....	346,246	0.68	100	4,244	0.02	100	342,002	1.35	100
Gladstone.....	287,500	0.56	100	132,356	0.51	100	155,234	0.61	100
Houghton.....	286,191	0.56	100	208,047	0.80	100	78,144	0.31	100
Menominee.....	272,529	0.53	100	7,426	0.03	100	265,103	1.05	100
All other ports.....	4,073,189	7.95	100	1,597,242	6.16	100	2,475,947	9.80	100

a Including South Chicago.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

A.—PRODUCTS OF AGRICULTURE.

PORTS.	AGGREGATE.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total product of agriculture traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total product of agriculture traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total product of agriculture traffic.	Per cent of total port traffic.
Total.....	8,449,806	100.00	16.50	4,041,738	100.00	15.58	4,408,068	100.00	17.45
Chicago (a).....	2,829,895	33.49	35.45	10,854	0.27	0.21	2,819,041	63.95	96.74
Buffalo.....	3,132,433	37.07	46.54	3,132,433	77.50	77.42			
Escanaba.....	4,543	0.05	0.13	35	0.02	0.02	4,508	0.10	0.13
Cleveland.....	25,440	0.30	0.70	24,649	0.61	0.90	791	0.02	0.09
Ashtabula.....									
Ashland.....									
Milwaukee.....	348,782	4.13	18.02	120		0.01	348,662	7.91	99.18
Marquette.....	8			8					
Toledo.....	275,532	3.26	19.17				275,532	6.25	29.61
Erie.....	293,641	3.48	23.06	293,641	7.27	37.99			
Superior.....	292,410	3.46	24.77				292,410	6.64	96.00
Duluth.....	362,889	4.30	32.57				362,889	8.23	84.22
Tonawanda.....									
Muskegon.....	5,327	0.06	0.53	5,327	0.13	3.52			
Fairport.....									
Two Harbors.....									
Detroit.....	121,832	1.44	15.94	7,148	0.18	1.16	114,684	2.60	77.07
Oswego.....	116,068	1.37	16.79	116,068	2.87	28.81			
Ogdensburg.....	242,450	2.87	36.57	237,332	5.87	50.49	5,124	0.12	2.66
Manistee.....	6,208	0.07	0.98	6,196	0.15	22.05	12		
Ludington.....	61,288	0.73	9.76	61,288	1.52	22.19			
Lorain.....									
Sandusky.....	8,063	0.10	1.34				8,063	0.18	2.71
Bay city.....									
Oscoda.....	94		0.02				94		0.02
Alpena.....	5,144	0.06	1.33	5,144	0.13	42.98			
Charlotte.....	5,406	0.06	1.47	5,406	0.14	29.51			
Marinette.....	16			16		0.38			
Gladstone.....	72,354	0.86	25.16				72,354	1.64	46.61
Houghton.....									
Menominee.....	80		0.03	80		1.08			
All other ports.....	239,897	2.84	3.89	135,993	3.36	8.51	103,904	2.36	4.20

PORTS.	WHEAT.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total wheat traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total wheat traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total wheat traffic.	Per cent of total port traffic.
Total.....	1,888,312	100.00	3.69	919,162	100.00	3.54	969,150	100.00	3.84
Chicago (a).....	312,203	16.53	3.91				312,203	32.21	10.71
Buffalo.....	781,548	41.39	11.61	781,548	85.03	19.32			
Escanaba.....									
Cleveland.....	22,494	1.19	0.62	22,494	2.45	0.82			
Ashtabula.....									
Ashland.....									
Milwaukee.....	29,191	1.55	1.51				29,191	3.01	8.30
Marquette.....									
Toledo.....	132,363	7.01	9.21				132,363	13.66	14.22
Erie.....	33,779	1.79	2.65	33,779	3.67	4.37			
Superior.....	191,623	10.15	16.23				191,623	19.77	62.91
Duluth.....	207,732	11.00	18.64				207,732	21.44	48.21
Tonawanda.....									
Muskegon.....	692	0.04	0.07	692	0.08	0.46			
Fairport.....									
Two Harbors.....									
Detroit.....	82,576	4.37	10.80	1,819	0.20	0.30	80,757	8.33	54.27
Oswego.....	19,297	1.02	2.79	19,297	2.10	4.79			
Ogdensburg.....	27,058	1.43	4.08	27,058	2.94	5.76			
Manistee.....									
Ludington.....									
Lorain.....									
Sandusky.....	8,063	0.43	1.34				8,063	0.83	2.71
Bay city.....									
Oscoda.....									
Alpena.....									
Charlotte.....									
Marinette.....									
Gladstone.....	1,500	0.08	0.52				1,500	0.16	0.97
Houghton.....									
Menominee.....									
All other ports.....	38,193	2.02	0.94	32,475	3.53	2.03	5,718	0.59	0.23

a Including South Chicago.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

A.—PRODUCTS OF AGRICULTURE—Continued.

PORTS.	CORN.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total corn traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total corn traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total corn traffic.	Per cent of total port traffic.
Total	3,513,515	100.00	6.86	1,583,901	100.00	6.11	1,929,614	100.00	7.64
Chicago (a)	1,769,621	50.37	22.17				1,769,621	91.71	60.73
Buffalo	1,319,560	37.56	19.60	1,319,560	83.31	32.61			
Escanaba									
Cleveland	1,010	0.03	0.03	434	0.03	0.02	576	0.03	0.07
Ashtabula									
Ashland									
Milwaukee	1,434	0.04	0.08				1,434	0.07	0.41
Marquette	8			8					
Toledo	73,952	2.11	5.14				73,952	3.83	7.95
Erie	98,623	2.81	7.75	98,623	6.23	12.76			
Superior	5,211	0.15	0.44				5,211	0.27	1.72
Duluth	49,901	1.42	4.48				49,901	2.59	11.58
Tonawanda									
Muskegon	2,608	0.07	0.26	2,608	0.16	1.72			
Fairport									
Two Harbors									
Detroit	31,778	0.90	4.16	4,242	0.27	0.69	27,536	1.43	18.51
Oswego	16,434	0.47	2.38	16,434	1.04	4.08			
Ogdensburg	131,907	3.75	19.90	131,907	8.33	28.06			
Manistee	217	0.01	0.03	217	0.01	0.77			
Ludington	163		0.03	163	0.01	0.06			
Lorain									
Sandusky									
Bay city									
Oscoda									
Alpena	168		0.04	168	0.01	1.40			
Charlotte									
Marinette									
Gladstone									
Houghton									
Menominee									
All other ports	10,920	0.31	0.27	9,537	0.60	0.60	1,383	0.07	0.06

PORTS.	OTHER GRAINS.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total other grain traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other grain traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other grain traffic.	Per cent of total port traffic.
Total	980,514	100.00	1.92	477,397	100.00	1.84	503,117	100.00	1.99
Chicago (a)	457,095	46.62	5.73				457,095	90.85	15.69
Buffalo	316,987	32.33	4.71	316,987	66.40	7.83			
Escanaba									
Cleveland	685	0.07	0.02	685	0.14	0.02			
Ashtabula									
Ashland									
Milwaukee	28,847	2.94	1.49				28,847	5.73	8.21
Marquette									
Toledo	5,560	0.57	0.39				5,560	1.11	0.60
Erie	13,452	1.37	1.06	13,452	2.82	1.74			
Superior									
Duluth	1,304	0.13	0.12				1,304	0.26	0.30
Tonawanda									
Muskegon	1,840	0.19	0.18	1,840	0.39	1.22			
Fairport									
Two Harbors									
Detroit	2,850	0.29	0.37	940	0.20	0.15	1,910	0.38	1.28
Oswego	78,340	7.99	11.33	78,340	16.41	19.45			
Ogdensburg	29,581	3.02	4.46	29,581	6.20	6.29			
Manistee	1,193	0.12	0.19	1,193	0.25	4.25			
Ludington	965	0.10	0.15	965	0.20	0.35			
Lorain									
Sandusky									
Bay city									
Oscoda	64		0.01				64	0.01	0.01
Alpena	4,976	0.51	1.29	4,976	1.04	41.58			
Charlotte	5,406	0.55	1.47	5,406	1.13	29.51			
Marinette	16			16		0.38			
Gladstone									
Houghton									
Menominee									
All other ports	31,353	3.20	0.77	23,016	4.82	1.44	8,337	1.66	0.34

a Including South Chicago.

TRANSPORTATION ON THE GREAT LAKES.

315

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

A.—PRODUCTS OF AGRICULTURE—Continued.

PORTS.	MILL PRODUCTS.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total mill product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mill product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mill product traffic.	Per cent of total port traffic.
Total.....	1,886,189	100.00	3.68	992,066	100.00	3.82	894,123	100.00	3.54
Chicago (a).....	229,998	12.19	2.88	1,860	0.19	0.03	228,138	25.52	7.63
Buffalo.....	666,651	35.35	9.91	666,651	67.20	16.48			
Escanaba.....	4,543	0.24	0.13	35	0.02	0.02	4,508	0.50	0.13
Cleveland.....	252	0.01		252	0.03	0.01			
Ashtabula.....									
Ashland.....									
Milwaukee.....	289,174	15.33	14.93				289,174	32.34	82.26
Marquette.....									
Toledo.....	63,657	3.38	4.43				63,657	7.12	6.84
Erie.....	147,507	7.82	11.60	147,507	14.87	19.08			
Superior.....	95,576	5.07	8.10				95,576	10.69	31.87
Duluth.....	103,134	5.47	9.28				103,134	11.54	23.94
Tonawanda.....									
Muskegon.....	33			33		0.02			
Fairport.....									
Two Harbors.....									
Detroit.....	999	0.05	0.13				999	0.11	0.67
Oswego.....									
Ogdensburg.....	46,770	2.48	7.05	46,770	4.72	9.95			
Manistee.....	3,078	0.16	0.49	3,078	0.31	10.95			
Ludington.....	60,160	3.19	9.58	60,160	6.06	21.78			
Lorain.....									
Sandusky.....									
Bay city.....									
Oscoda.....									
Alpena.....									
Charlotte.....									
Marinette.....									
Gladstone.....	70,854	3.76	24.64				70,854	7.92	45.64
Houghton.....									
Menominee.....									
All other ports.....	103,863	5.50	2.55	65,720	6.62	4.11	38,083	4.26	1.54

PORTS.	ALL OTHER FARM PRODUCTS.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total other farm product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other farm product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other farm product traffic.	Per cent of total port traffic.
Total.....	181,276	100.00	0.35	69,212	100.00	0.27	112,064	100.00	0.44
Chicago (a).....	60,978	33.64	0.76	8,994	13.00	0.18	51,984	46.39	1.78
Buffalo.....	47,687	26.31	0.71	47,687	68.90	1.18			
Escanaba.....									
Cleveland.....	999	0.55	0.08	784	1.13	0.03	215	0.19	0.02
Ashtabula.....									
Ashland.....									
Milwaukee.....	136	0.08	0.01	120	0.17	0.01	16	0.01	
Marquette.....									
Toledo.....									
Erie.....	280	0.15	0.02	280	0.40	0.04			
Superior.....									
Duluth.....	818	0.45	0.07				818	0.73	0.19
Tonawanda.....									
Muskegon.....	154	0.08	0.02	154	0.22	0.10			
Fairport.....									
Two Harbors.....									
Detroit.....	3,629	2.00	0.48	147	0.21	0.02	3,482	3.11	2.34
Oswego.....	1,997	1.10	0.29	1,997	2.89	0.49			
Ogdensburg.....	7,140	3.94	1.08	2,016	2.91	0.43	5,124	4.57	2.66
Manistee.....	1,720	0.95	0.27	1,708	2.47	6.08	12	0.01	
Ludington.....									
Lorain.....									
Sandusky.....									
Bay city.....									
Oscoda.....	30	0.02	0.01				30	0.03	0.01
Alpena.....									
Charlotte.....									
Marinette.....									
Gladstone.....									
Houghton.....									
Menominee.....	80	0.04	0.03	80	0.12	1.08			
All other ports.....	55,628	30.69	1.36	5,245	7.58	0.33	59,383	44.96	2.03

a Including South Chicago.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

B.—PRODUCTS OF MINES AND QUARRIES.

PORTS.	AGGREGATE.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total mine and quarry traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mine and quarry traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total mine and quarry traffic.	Per cent of total port traffic.
Total.....	27,763,178	100.00	54.22	13,454,189	100.00	51.88	14,308,989	100.00	56.63
Chicago (a).....	2,209,284	7.96	27.67	2,209,276	16.42	43.58	8		
Buffalo.....	2,568,035	9.25	38.16	386,068	2.87	0.54	2,181,969	15.25	81.30
Escanaba.....	3,558,620	12.82	98.13	194,521	1.44	99.47	3,364,099	23.51	98.06
Cleveland.....	2,951,439	10.63	81.50	2,092,187	15.55	76.42	850,252	6.01	97.22
Ashtabula.....	2,690,944	9.69	99.84	2,201,359	16.36	99.81	489,585	3.42	100.00
Ashland.....	1,867,712	6.73	83.11	204,691	1.52	42.00	1,663,021	11.62	94.50
Milwaukee.....	1,107,543	3.99	57.21	1,107,543	8.23	69.91			
Marquette.....	1,680,391	6.05	98.20	138,596	1.03	96.69	1,541,495	10.77	98.34
Toledo.....	863,488	3.11	60.09	213,488	1.59	42.16	650,000	4.54	69.84
Erie.....	835,910	3.01	65.72	425,507	3.16	55.04	410,403	2.87	82.25
Superior.....	733,506	2.64	62.15	726,537	5.40	82.97	6,969	0.05	2.29
Duluth.....	538,916	1.94	48.38	538,916	4.00	78.89			
Tonawanda.....	17,166	0.06	1.64	17,166	0.13	1.64			
Muskegon.....	15,733	0.06	1.57	15,733	0.12	10.40			
Fairport.....	990,124	3.57	99.17	930,686	6.92	99.11	59,438	0.41	100.00
Two Harbors.....	936,541	3.37	100.00				936,541	6.55	100.00
Detroit.....	287,277	1.03	37.57	280,675	2.09	45.58	6,602	0.05	4.44
Oswego.....	282,138	1.02	40.83				282,148	1.97	97.88
Ogdensburg.....	136,754	0.50	20.63	71,398	0.53	15.19	65,356	0.46	33.89
Manistee.....	114,188	0.41	18.13	9,187	0.07	32.70	105,001	0.73	17.45
Ludington.....	61,804	0.22	9.85	4,583	0.03	1.66	57,221	0.40	16.28
Lorain.....	613,704	2.22	98.86	340,033	2.53	98.02	273,671	1.91	99.93
Sandusky.....	504,188	1.82	83.70	214,877	1.60	70.44	289,311	2.02	97.29
Bay city.....	67,423	0.24	12.19	62,046	0.46	93.66	5,377	0.04	1.10
Oscoda.....	322	0.07					322		0.07
Alpena.....	6,825	0.02	1.76	6,825	0.05	57.02			
Charlotte.....	350,000	1.26	95.01				350,000	2.45	99.99
Marquette.....	2,999	0.01	0.87	2,957	0.02	69.67	42		0.01
Gladstone.....	208,940	0.75	72.65	126,060	0.94	95.24	82,880	0.58	53.39
Houghton.....	235,187	0.85	82.18	166,523	1.24	80.04	68,664	0.48	87.87
Menominee.....	1,346	0.04	0.49	1,346	0.01	18.12			
All other ports.....	1,325,021	4.77	32.53	765,407	5.69	47.92	559,614	3.91	22.60

PORTS.	COAL AND COKE.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total coal and coke traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total coal and coke traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total coal and coke traffic.	Per cent of total port traffic.
Total.....	11,268,270	100.00	22.01	5,162,471	100.00	19.91	6,105,799	100.00	24.17
Chicago (a).....	1,329,364	11.80	16.65	1,329,364	25.75	26.22			
Buffalo.....	2,156,670	19.14	32.05				2,156,670	35.32	80.36
Escanaba.....	194,199	1.72	5.36	194,199	3.76	99.30			
Cleveland.....	826,230	7.33	22.82	1,200	0.02	0.04	825,030	13.52	93.34
Ashtabula.....	489,585	4.35	18.17				489,585	8.02	100.00
Ashland.....	201,241	1.79	8.96	201,241	3.90	41.29			
Milwaukee.....	907,743	8.06	46.89	907,743	17.58	57.30			
Marquette.....	126,421	1.12	7.39	126,421	2.45	88.19			
Toledo.....	743,369	6.60	51.73	93,369	1.81	18.44	650,000	10.65	69.84
Erie.....	410,403	3.64	32.27				410,403	6.72	82.25
Superior.....	720,000	6.39	61.00	720,000	13.95	82.22			
Duluth.....	485,000	4.30	43.54	485,000	9.39	70.99			
Tonawanda.....									
Muskegon.....	3,620	0.03	0.36	3,620	0.07	2.39			
Fairport.....	59,438	0.53	5.95				59,438	0.97	100.00
Two Harbors.....									
Detroit.....	145,464	1.29	19.02	141,900	2.75	23.04	3,564	0.06	2.40
Oswego.....	282,098	2.50	40.82				282,098	4.62	97.96
Ogdensburg.....	131,587	1.17	19.85	66,231	1.28	14.09	65,356	1.07	33.89
Manistee.....	9,187	0.08	1.46	9,187	0.18	32.70			
Ludington.....	4,583	0.04	0.73	4,583	0.09	1.66			
Lorain.....	273,671	2.43	44.08				273,671	4.48	99.93
Sandusky.....	276,946	2.46	45.98	1,561	0.03	0.51	275,385	4.51	92.60
Bay city.....	51,000	0.45	9.22	51,000	0.99	70.98			
Oscoda.....									
Alpena.....	6,000	0.05	1.55	6,000	0.12	50.13			
Charlotte.....	350,000	3.11	95.01				350,000	5.73	99.99
Marquette.....	2,870	0.03	0.83	2,870	0.06	67.62			
Gladstone.....	122,000	1.08	42.42	122,000	2.36	92.17			
Houghton.....	169,336	1.50	59.17	144,261	2.79	69.34	25,075	0.41	32.00
Menominee.....	1,150	0.01	0.42	1,150	0.02	15.48			
All other ports.....	789,095	7.00	19.37	549,571	10.65	34.41	239,524	3.92	9.67

a Including South Chicago.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

B.—PRODUCTS OF MINES AND QUARRIES—Continued.

PORTS.	IRON ORE.								
	Total movement			Receipts.			Shipments.		
	Amount in tons.	Per cent of total iron ore traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total iron ore traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total iron ore traffic.	Per cent of total port traffic.
Total.....	15,303,180	100.00	29.89	7,626,073	100.00	29.40	7,677,107	100.00	30.38
Chicago (a).....	731,188	4.78	9.16	731,188	9.59	14.42			
Buffalo.....	333,827	2.18	4.96	333,827	4.38	8.25			
Escanaba.....	3,364,067	21.98	92.77				3,364,067	43.82	96.06
Cleveland.....	1,978,208	12.93	54.02	1,951,564	25.59	71.28	26,644	0.34	3.02
Ashtabula.....	2,199,109	14.37	81.59	2,199,109	28.84	99.71			
Ashland.....	1,663,021	10.87	74.00				1,663,021	21.66	94.50
Milwaukee.....	124,312	0.81	6.42	124,312	1.63	7.85			
Marquette.....	1,541,495	10.07	90.10				1,541,495	20.08	98.34
Toledo.....	97,476	0.64	6.78	97,476	1.28	19.25			
Erie.....	418,426	2.73	32.89	418,426	5.49	54.12			
Superior.....									
Duluth.....	10,691	0.07	0.96	10,691	0.14	1.57			
Tonawanda.....	17,166	0.11	1.64	17,166	0.22	1.64			
Muskegon.....									
Fairport.....	928,616	6.07	93.01	928,616	12.18	98.89			
Two Harbors.....	936,541	6.12	100.00				936,541	12.20	100.00
Detroit.....	119,403	0.78	15.62	117,247	1.54	19.04	2,156	0.03	1.45
Oswego.....									
Ogdensburg.....	2,587	0.02	0.39	2,587	0.03	0.55			
Manistee.....									
Ludington.....									
Lorain.....	335,162	2.19	54.00	335,162	4.39	96.62			
Sandusky.....	208,411	1.36	34.60	208,411	2.73	68.33			
Bay city.....									
Oscoda.....	28		0.01				28		0.01
Alpena.....									
Charlotte.....									
Marinette.....									
Gladstone.....	82,880	0.54	28.82				82,880	1.08	53.36
Houghton.....									
Menominee.....									
All other ports.....	210,566	1.38	5.17	150,291	1.97	9.41	60,275	0.79	2.43

PORTS.	STONE (ALL KINDS).								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total stone traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total stone traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total stone traffic.	Per cent of total port traffic.
Total.....	547,229	100.00	1.07	311,015	100.00	1.20	236,214	100.00	0.93
Chicago (a).....	18,176	3.32	0.23	18,176	5.85	0.36			
Buffalo.....	9,060	1.66	0.13	9,060	2.91	0.22			
Escanaba.....	288	0.05		288	0.09	0.15			
Cleveland.....	138,327	25.28	3.82	130,777	42.05	4.78	7,550	3.20	0.96
Ashtabula.....	2,250	0.41	0.08	2,250	0.72	0.10			
Ashland.....									
Milwaukee.....	3,262	0.60	0.17	3,262	1.05	0.20			
Marquette.....	11,951	2.18	0.70	11,951	3.84	8.34			
Toledo.....	12,822	2.34	0.89	12,822	4.12	2.53			
Erie.....									
Superior.....									
Duluth.....	35,374	6.46	3.17	35,374	11.37	5.18			
Tonawanda.....									
Muskegon.....	12,113	2.21	1.21	12,113	3.90	8.01			
Fairport.....	2,070	0.38	0.21	2,070	0.67	0.22			
Two Harbors.....									
Detroit.....									
Oswego.....									
Ogdensburg.....									
Manistee.....									
Ludington.....									
Lorain.....	4,800	0.88	0.77	4,800	1.54	1.38			
Sandusky.....	13,926	2.55	2.31				13,926	5.89	4.69
Bay city.....	11,000	2.01	1.99	11,000	3.54	16.61			
Oscoda.....									
Alpena.....	600	0.11	0.15	600	0.19	5.01			
Charlotte.....									
Marinette.....									
Gladstone.....									
Houghton.....	39,951	7.30	13.96	22,262	7.16	10.70	17,689	7.49	22.64
Menominee.....									
All other ports.....	231,259	42.26	5.68	34,210	11.00	2.14	197,049	83.42	7.96

a Including South Chicago.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

B.—PRODUCTS OF MINES AND QUARRIES—Continued.

PORTS.	SALT.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total salt traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total salt traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total salt traffic.	Per cent of total port traffic.
Total	549,350	100.00	1.07	296,513	100.00	1.14	252,837	100.00	1.00
Chicago (a)	128,956	23.47	1.61	128,948	43.49	2.55	8		
Buffalo	25,299	4.61	0.38				25,299	10.01	0.94
Escanaba	66	0.01		34	0.01	0.02	32	0.01	
Cleveland	8,674	1.58	0.24	8,646	2.92	0.32	28	0.01	
Ashtabula									
Ashland	3,450	0.63	0.15	3,450	1.16	0.71			
Milwaukee	71,944	13.10	3.72	71,944	24.26	4.54			
Marquette	224	0.04	0.01	224	0.08	0.16			
Toledo	9,729	1.77	0.68	9,729	3.28	1.92			
Erie									
Superior	6,537	1.19	0.56	6,537	2.20	0.75			
Duluth	7,851	1.43	0.71	7,851	2.65	1.15			
Tonawanda									
Muskegon									
Fairport									
Two Harbors									
Detroit	22,410	4.08	2.93	21,528	7.26	3.50	882	0.35	0.50
Oswego	50	0.01	0.01				50	0.02	0.02
Ogdensburg									
Manistee	105,001	19.11	18.67				105,001	41.53	17.45
Ludington	57,221	10.42	9.12				57,221	22.63	16.28
Lorain	71	0.01	0.01	71	0.02	0.02			
Sandusky	4,905	0.89	0.81	4,905	1.65	1.60			
Bay city	5,377	0.98	0.97				5,377	2.13	1.10
Oscoda	294	0.05	0.06				294	0.11	0.06
Alpena									
Charlotte									
Marinette	129	0.02	0.04	87	0.03	2.05	42	0.02	0.01
Gladstone	4,060	0.74	1.41	4,060	1.37	3.07			
Houghton									
Menominee	196	0.04	0.07	196	0.07	2.64			
All other ports	86,906	15.82	2.13	28,303	9.55	1.77	58,603	23.18	2.37

PORTS.	OTHER PRODUCTS OF MINES AND QUARRIES.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.
Total	95,149	100.00	0.18	58,117	100.00	0.23	37,032	100.00	0.15
Chicago (a)	1,600	1.68	0.02	1,600	2.75	0.03			
Buffalo	43,179	45.38	0.64	43,179	74.30	1.07			
Escanaba									
Cleveland									
Ashtabula									
Ashland									
Milwaukee	282	0.30	0.01	282	0.48	0.02			
Marquette									
Toledo	92	0.10	0.01	92	0.16	0.02			
Erie	7,081	7.44	0.56	7,081	12.18	0.92			
Superior	6,969	7.32	0.59				6,969	18.82	2.29
Duluth									
Tonawanda									
Muskegon									
Fairport									
Two Harbors									
Detroit									
Oswego									
Ogdensburg	2,580	2.71	0.39	2,580	4.44	0.55			
Manistee									
Ludington									
Lorain									
Sandusky									
Bay city	46	0.05	0.01	46	0.08	0.07			
Oscoda									
Alpena	225	0.24	0.06	225	0.39	1.88			
Charlotte									
Marinette									
Gladstone									
Houghton	25,900	27.22	9.05				25,900	69.94	33.14
Menominee									
All other ports	7,195	7.56	0.18	3,032	5.22	0.19	4,163	11.24	0.17

a Including South Chicago.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

C.—OTHER PRODUCTS.

PORTS.	AGGREGATE.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total other product traffic.	Per cent of total port traffic.
Total.....	14,980,122	100.00	29.28	8,440,205	100.00	32.54	6,549,917	100.00	25.92
Chicago (a).....	2,944,859	19.05	36.88	2,849,843	33.77	56.21	95,016	1.45	3.26
Buffalo.....	1,029,669	6.87	15.30	527,645	6.25	13.04	502,024	7.67	18.70
Escanaba.....	63,227	0.42	1.74	1,002	0.01	0.51	62,225	0.95	1.81
Cleveland.....	644,691	4.30	17.80	620,872	7.36	22.68	23,819	0.36	2.69
Ashtabula.....	4,236	0.03	0.16	4,236	0.05	0.19			
Ashland.....	379,530	2.53	16.89	282,667	3.35	58.00	96,863	1.48	5.50
Milwaukee.....	479,483	3.20	24.77	476,591	5.65	30.08	2,892	0.04	0.82
Marquette.....	30,786	0.20	1.80	4,742	0.06	3.31	26,044	0.40	1.66
Toledo.....	297,971	1.99	20.74	292,863	3.47	57.84	5,108	0.08	0.55
Erie.....	142,437	0.95	11.20	53,882	0.64	6.97	88,555	1.35	17.75
Superior.....	154,381	1.03	13.08	149,155	1.77	17.03	5,226	0.08	1.71
Duluth.....	212,243	1.42	19.05	144,246	1.71	21.11	67,997	1.04	15.78
Tonawanda.....	1,029,729	6.87	98.36	1,029,729	12.20	98.36			
Muskegon.....	981,663	6.55	97.90	130,243	1.54	86.08	851,440	13.00	100.00
Fairport.....	8,335	0.05	0.83	8,335	0.10	0.89			
Two Harbors.....									
Detroit.....	355,444	2.37	46.49	327,927	3.80	53.26	27,517	0.42	18.49
Oswego.....	292,902	1.95	42.38	286,779	3.40	71.19	6,123	0.09	2.12
Ogdensburg.....	283,694	1.89	42.80	161,814	1.91	34.32	122,380	1.87	63.45
Manistee.....	509,514	3.40	80.89	12,713	0.15	45.25	496,801	7.59	82.55
Ludington.....	504,535	3.37	80.39	210,358	2.49	76.15	294,177	4.49	83.72
Lorain.....	7,069	0.05	1.14	6,896	0.08	1.98	203		0.07
Sandusky.....	90,152	0.60	14.96	90,152	1.07	29.56			
Bay city.....	485,796	3.24	87.81	4,200	0.05	6.34	481,596	7.35	98.90
Oscoda.....	489,997	3.27	99.91				489,997	7.48	99.91
Alpena.....	374,899	2.50	98.91				374,899	5.72	100.00
Charlotte.....	12,955	0.09	3.52	12,912	0.15	70.49	43		0.01
Marinette.....	343,231	2.29	99.13	1,271	0.01	29.95	341,960	5.22	99.99
Gladstone.....	6,296	0.04	2.19	6,296	0.07	4.76			
Houghton.....	51,004	0.34	17.82	41,524	0.49	19.96	9,480	0.15	12.13
Menominee.....	271,103	1.81	98.48	6,000	0.07	80.80	265,103	4.05	100.00
All other ports.....	2,508,271	16.73	61.68	695,842	8.24	43.57	1,812,429	27.67	73.20

PORTS.	ANIMAL PRODUCTS.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total animal product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total animal product traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total animal product traffic.	Per cent of total port traffic.
Total.....	125,581	100.00	0.25	64,728	100.00	0.25	60,853	100.00	0.24
Chicago (a).....	56,131	44.70	0.70	146	0.22		55,985	92.00	1.92
Buffalo.....	59,820	47.63	0.89	59,820	92.42	1.48			
Escanaba.....	34	0.03					34	0.06	
Cleveland.....									
Ashtabula.....									
Ashland.....									
Milwaukee.....	2,366	1.88	0.12	72	0.11		2,294	3.77	0.65
Marquette.....									
Toledo.....									
Erie.....									
Superior.....	1,321	1.06	0.11				1,321	2.17	0.43
Duluth.....									
Tonawanda.....									
Muskegon.....	963	0.77	0.10	963	1.49	0.64			
Fairport.....									
Two Harbors.....									
Detroit.....									
Oswego.....									
Ogdensburg.....	426	0.34	0.07	426	0.66	0.09			
Manistee.....	427	0.34	0.07	419	0.65	1.49	8	0.01	
Ludington.....									
Lorain.....									
Sandusky.....									
Bay city.....									
Oscoda.....									
Alpena.....									
Charlotte.....									
Marinette.....									
Gladstone.....									
Houghton.....									
Menominee.....									
All other ports.....	4,093	3.26	0.10	2,882	4.45	0.18	1,211	1.99	0.06

* Including South Chicago.

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 8.—FREIGHT MOVEMENT IN GENERAL, BY PRINCIPAL PORTS—Continued.

C.—OTHER PRODUCTS—Continued.

PORTS.	LUMBER.								
	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total lumber traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total lumber traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total lumber traffic.	Per cent of total port traffic.
Total.....	12,205,655	100.00	23.84	6,857,237	100.00	26.44	5,348,398	100.00	21.17
Chicago (a).....	2,590,110	21.22	32.44	2,588,004	37.74	51.05	2,106	0.04	0.07
Buffalo.....	403,951	3.31	6.00	403,951	5.89	9.98			
Escanaba.....	54,041	0.44	1.49				54,041	1.01	1.57
Cleveland.....	566,718	4.64	15.65	565,626	8.25	20.06	1,092	0.02	0.12
Ashtabula.....	4,236	0.03	0.16	4,236	0.06	0.19			
Ashland.....	80,119	0.66	3.57				80,119	1.50	4.55
Milwaukee.....	412,479	3.38	21.31	412,479	6.02	26.04			
Marquette.....	16,179	0.13	0.95	175		0.12	16,004	0.30	1.02
Toledo.....	287,507	2.36	20.01	282,399	4.12	55.77	5,108	0.10	0.55
Erie.....	17,850	0.15	1.40	17,850	0.26	2.31			
Superior.....	3,905	0.03	0.33				3,905	0.07	1.28
Duluth.....	13,110	0.11	1.18				13,110	0.25	3.04
Tonawanda.....	1,029,729	8.44	98.36	1,029,729	15.02	98.36			
Muskegon.....	966,145	7.92	90.35	119,530	1.74	79.00	846,615	15.83	99.43
Fairport.....	878	0.01	0.09	878	0.01	0.09			
Two Harbors.....									
Detroit.....	325,256	2.66	42.54	314,995	4.59	51.16	10,261	0.19	6.89
Owego.....	283,058	2.32	40.96	283,058	4.13	70.27			
Ogdensburg.....	136,773	1.12	20.63	135,273	1.97	28.78	1,500	0.03	0.76
Manistee.....	477,785	3.91	75.85				477,785	8.93	79.39
Ludington.....	258,520	2.12	41.19				258,520	4.83	73.57
Lorain.....	6,866	0.06	1.11	6,866	0.10	1.98			
Sandusky.....	87,040	0.71	14.45	87,040	1.27	28.54			
Bay city.....	485,796	3.98	87.81	4,200	0.06	6.34	481,596	9.00	96.90
Oscoda.....	489,962	4.01	99.90				489,962	9.16	99.91
Alpena.....	373,204	3.06	96.47				373,204	0.98	99.55
Charlotte.....	12,912	0.10	3.51	12,912	0.19	70.49			
Marinette.....	341,723	2.80	98.70	278	0.01	6.55	341,445	6.38	99.84
Gladstone.....	10,704	0.09	3.74	1,224	0.02	0.59	9,480	0.18	12.13
Houghton.....	265,103	2.17	97.28				265,103	4.96	100.00
Menominee.....	2,203,996	18.06	54.11	586,554	8.55	36.73	1,617,442	30.24	65.32
All other ports.....									

MANUFACTURES, MISCELLANEOUS MERCHANDISE, AND OTHER COMMODITIES.

PORTS.	Total movement.			Receipts.			Shipments.		
	Amount in tons.	Per cent of total manufactures, etc., traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total manufactures, etc., traffic.	Per cent of total port traffic.	Amount in tons.	Per cent of total manufactures, etc., traffic.	Per cent of total port traffic.
Total.....	2,658,886	100.00	5.19	1,518,220	100.00	5.85	1,140,666	100.00	4.51
Chicago (a).....	298,618	11.23	3.74	261,693	17.24	5.16	36,925	3.24	1.27
Buffalo.....	565,898	21.28	8.41	63,874	4.21	1.58	502,024	44.01	18.70
Escanaba.....	9,152	0.34	0.25	1,002	0.06	0.51	8,150	0.71	0.24
Cleveland.....	77,973	2.93	2.15	55,246	3.64	2.02	22,727	1.99	2.57
Ashtabula.....									
Ashland.....	299,411	11.26	13.32	282,667	18.62	58.00	16,744	1.47	0.96
Milwaukee.....	64,638	2.43	3.34	64,040	4.22	4.04	598	0.05	0.17
Marquette.....	14,607	0.55	0.85	4,567	0.30	3.19	10,040	0.88	0.64
Toledo.....	10,404	0.39	0.73	10,464	0.69	2.07			
Erie.....	124,587	4.69	9.80	36,032	2.37	4.66	88,555	7.76	17.75
Superior.....	149,155	5.61	12.64	149,155	9.82	17.03			
Duluth.....	199,133	7.49	17.87	144,246	9.50	21.11	54,887	4.81	12.74
Tonawanda.....									
Muskegon.....	14,575	0.55	1.45	9,750	0.64	6.44	4,825	0.42	0.57
Fairport.....	7,457	0.28	0.74	7,457	0.49	0.80			
Two Harbors.....									
Detroit.....	30,188	1.14	3.95	12,932	0.85	2.10	17,256	1.51	11.60
Owego.....	9,844	0.37	1.42	3,721	0.25	0.92	6,123	0.54	2.12
Ogdensburg.....	146,495	5.51	22.10	25,615	1.69	5.45	120,880	10.60	62.67
Manistee.....	31,302	1.18	4.97	12,294	0.81	43.70	19,008	1.67	3.16
Ludington.....	246,015	9.25	39.20	210,358	13.86	76.15	35,657	3.13	10.15
Lorain.....	203	0.01	0.03				203	0.02	0.07
Sandusky.....	3,112	0.12	0.51	3,112	0.20	1.02			
Bay city.....									
Oscoda.....	35		0.01				35		
Alpena.....	1,695	0.06	0.44				1,695	0.15	0.45
Charlotte.....	43		0.01				43		0.01
Marinette.....	1,508	0.06	0.43	993	0.07	23.40	515	0.05	0.15
Gladstone.....	6,296	0.24	2.19	6,296	0.41	4.76			
Houghton.....	40,300	1.52	14.08	40,300	2.65	19.37			
Menominee.....	6,000	0.22	2.20	6,000	0.40	80.80			
All other ports.....	300,182	11.29	7.37	106,406	7.01	6.66	193,776	16.99	7.88

a Including South Chicago.

TRANSPORTATION ON THE GREAT LAKES.

321

TRAFFIC OPERATIONS—Continued.

TABLE 9.—FREIGHT MOVEMENT IN GENERAL SUMMARIZED—RECEIPTS, SHIPMENTS AND TOTAL MOVEMENT OF THE LAKE FREIGHT, UNCLASSIFIED AS TO COMMODITIES, AND ALLOTTED TO ALL THE TRADING POINTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

PORTS.	Total tonnage.	Receipts.	Shipments.	PORTS.	Total tonnage.	Receipts.	Shipments.
Total	51,203,106	25,036,132	25,266,974	Charlevoix, Michigan.....	62,824	8,915	53,909
Chicago (a), Illinois.....	7,984,038	5,069,973	2,914,065	Marine city, Michigan.....	61,001	45,575	15,426
Buffalo, New York.....	6,730,137	4,046,144	2,683,993	Traverse city, Michigan.....	60,766	6,506	54,260
Escanaba, Michigan.....	3,626,390	195,558	3,430,832	Baraga, Michigan.....	59,278		59,278
Cleveland, Ohio.....	3,621,570	2,737,708	883,862	Pequanning, Michigan.....	54,193		54,193
Ashtabula, Ohio.....	2,695,180	2,205,595	489,585	Fruitport, Michigan.....	54,126	47,854	6,272
Ashland, Wisconsin.....	2,247,242	487,358	1,759,884	Morristown, New York.....	48,369	7,178	41,191
Milwaukee, Wisconsin.....	1,935,808	1,584,254	351,554	St. Clair, Michigan.....	41,553	14,030	27,523
Marquette, Michigan.....	1,710,885	143,346	1,567,539	Kenosha, Wisconsin.....	41,532	35,898	5,724
Toledo, Ohio.....	1,436,901	506,351	930,640	Ontonagon, Michigan.....	40,700		40,700
Erie, Pennsylvania.....	1,271,988	773,030	498,958	Benton Harbor, Michigan.....	37,573	34,614	2,959
Superior, Wisconsin.....	1,180,297	875,692	304,605	Fayette, Michigan.....	37,389	23,557	13,832
Duluth, Minnesota.....	1,114,048	683,162	430,886	Pontwater, Michigan.....	33,111	469	32,642
Tonawanda, New York.....	1,046,895	1,046,895		Keweenaw, Wisconsin.....	32,627	9,273	23,354
Muskegon, Michigan.....	1,002,743	151,303	851,440	Port Washington, Wisconsin.....	32,304	21,197	11,107
Fairport, Ohio.....	998,459	939,021	59,438	Bay Mills, Michigan.....	32,037	1,389	30,648
Two Harbors, Minnesota.....	936,541		936,541	Sodus Point, New York.....	24,846	11,911	12,935
Detroit, Michigan.....	764,553	615,750	148,803	Cape Vincent, New York.....	22,819	22,398	421
Oswego, New York.....	691,118	402,847	288,271	Rogers city, Michigan.....	22,504	401	22,013
Ogdensburg, New York.....	662,904	470,044	192,860	Black River, Michigan.....	22,293	2,043	20,250
Manistee, Michigan.....	629,910	28,096	601,814	Algonac, Michigan.....	17,586	9,654	7,932
Ludington, Michigan.....	627,627	276,229	351,398	Dunkirk, New York.....	17,146	17,146	
Lorain, Ohio.....	620,773	346,899	273,874	Marysville, Michigan.....	13,466		13,466
Sandusky, Ohio.....	602,403	305,029	297,374	Sand Beach, Michigan.....	11,867	10,646	1,221
Bay city, Michigan.....	553,219	66,240	486,973	Waukegan, Illinois.....	10,959	10,959	
Oscoda, Michigan.....	490,413		490,413	South Haven, Michigan.....	10,727	2,234	8,493
Alpena, Michigan.....	386,868	11,969	374,899	Leland, Michigan.....	10,325		10,325
Charlotte, New York.....	368,361	18,318	350,043	Clayton, New York.....	6,828	6,519	309
Marquette, Wisconsin.....	346,246	4,244	342,002	Sacketts Harbor, New York.....	6,508	6,401	107
Gladstone, Michigan.....	287,590	132,356	155,234	Sabawaing, Michigan.....	6,204	835	5,369
Houghton, Michigan.....	286,191	208,047	78,144	Alexandria Bay, New York.....	6,104	5,951	153
Menominee, Michigan.....	272,529	7,426	265,103	Two Rivers, Michigan.....	5,863	5,693	170
East Saginaw, Michigan.....	248,538	48,686	199,852	Petoskey, Michigan.....	5,631	1,701	3,930
Kelleys Island, Ohio.....	232,153	19,971	212,182	Glen Arbor, Michigan.....	4,741		4,741
East Tawas, Michigan.....	230,516	1,172	229,344	Grindstone Island, New York.....	4,608	158	4,450
Cheboygan, Michigan.....	218,940	24,523	194,417	Port Sanilac, Michigan.....	4,501	590	3,911
Washburn, Wisconsin.....	188,393	55,092	133,301	De Pere, Wisconsin.....	4,434	1,181	3,253
Port Huron, Michigan.....	170,073	152,073	18,000	Cross Village, Michigan.....	2,670	11	2,659
Grand Haven, Michigan.....	169,546	101,150	68,396	Dexter, New York.....	2,109	2,169	
Racine, Wisconsin.....	160,537	159,312	1,225	Henderson, New York.....	1,968	1,537	431
Green Bay, Wisconsin.....	156,810	101,369	55,441	Oconto, Wisconsin.....	1,842	342	1,500
Michigan city, Indiana.....	148,029	147,897	132	Forestville, Michigan.....	1,817	1,005	812
Manistiquie, Michigan.....	144,011	3,690	140,321	Massena, New York.....	1,702	1,514	188
Fair Haven, New York.....	134,799	15,482	119,317	Wilson, New York.....	1,593	1,479	114
Sheboygan, Wisconsin.....	124,387	115,995	8,392	Pultneyville, New York.....	815	815	
Manitowoc, Wisconsin.....	113,377	88,354	25,023	Oak Orchard, New York.....	650	650	
St. Ignace, Michigan.....	107,895	24,068	83,827	Sandy Creek, New York.....	622	622	
St. Joseph, Michigan.....	85,017	60,516	24,501	Waddington, New York.....	575	523	52
Fort River, Michigan.....	82,080	512	81,568	Chaumont, New York.....	270	235	35
Peashtigo, Wisconsin.....	80,683		80,683	Olcott, New York.....	215	162	53
Sault Ste. Marie, Michigan.....	76,125	37,063	39,062	Millins Bay, New York.....	119	119	
Montague, Michigan.....	72,348	1,264	71,084	Thousand Island Park, New York.....	115	115	
Elk Rapids, Michigan.....	72,108	41,020	31,088	Chippewa Bay, New York.....	84	30	54
Huron, Ohio.....	70,180	13,694	56,486	Youngstown, New York.....	75	75	

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERA

**TABLE 10.—FREIGHT RECEIPTS BY EXTENDED LIST OF COMMODITIES—RECEIPTS AT ALL THE LAKE AND RIVER
THE 4 COMPREHENSIVE CLASSES**

PORTS.		Total.	PRODUCTS OF AGRICULTURE.								PRODUCTS OF MINES AND QUARRIES.		
			Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Total	25,936,132	919,162	1,583,901	477,397	992,066	800	7,972	1,674	58,766	5,162,471	7,626,073	42,120
2	Lake Superior	2,491,149		22	464	493	176	233	367	131	1,754,675	10,691	
3	Ashland, Wisconsin	487,358									201,241		
4	Baraga, Michigan												
5	Bay Mills, Michigan	1,389		14	160						1,200		
6	Duluth, Minnesota	683,162									485,000	10,601	
7	Houghton, Michigan	208,047									144,261		
8	Marquette, Michigan	143,346		8							126,421		
9	Ontonagon, Michigan												
10	Pequaming, Michigan												
11	St. Marys Falls, Michigan	37,063			304	493	176	233	157	131	24,938		
12	Superior, Wisconsin	875,692									720,000		
13	Two Harbors, Minnesota												
14	Washburn, Wisconsin	55,092									51,614		
15	Lakes Huron and St. Clair	1,029,356	29,240	10,688	16,275	11,963	147	234			362,747	117,639	
16	Algonac, Michigan	9,654									7,193		
17	Alpena, Michigan	11,060		168	4,976						6,000		
18	Bay city, Michigan	66,246									51,000		
19	Black River, Michigan	2,043									500		
20	Cheboygan, Michigan	24,523	1,927	140	1,200	196					11,000		
				474	823								
21	Detroit, Michigan	615,750	1,819	4,242	940		147				141,900	117,247	
22	East Saginaw, Michigan	48,086									46,316		
23	East Tawas, Michigan	1,172									792	392	
24	Forestville, Michigan	1,005									25		
25	Marine city, Michigan	45,575				2					41,653		
26	Marysville, Michigan												
27	Oscoda, Michigan												
28	Port Huron, Michigan	152,073	24,000	5,600	8,000	11,700					24,000		
29	Port Sanilac, Michigan	590									125		
30	Rogers city, Michigan	491		64	336	5					37		
31	St. Clair, Michigan	14,030									8,000		
32	St. Ignace, Michigan	24,068						234			19,257		
33	Sand Beach, Michigan	10,046	1,500								5,269		
34	Sebewaing, Michigan	835									80		
35	Lake Michigan	8,480,892	4,553	6,209	10,625	118,423	309	5,666	131	6,877	2,865,021	1,004,630	
36	Benton Harbor, Michigan	34,614											
37	Charlevoix, Michigan	8,915	339	614	222	1,36	50				1,337	4,775	
38	Chicago and South Chicago, Illi- nois	5,069,973				1,860		3,400	36	5,558	1,329,364	731,188	
39	Cross Village, Michigan	11		3	8								
40	De Pere, Wisconsin	1,181									1,095		
41	Elk Rapids, Michigan	41,020	60	17	69						662	36,950	
42	Escanaba, Michigan	195,558				35					194,190		
43	Fayette, Michigan	23,557		20	48						700	22,621	
44	Ford river, Michigan	512		112	400								
45	Fruitport, Michigan	47,854										43,904	
46	Gladstone, Michigan	132,356									122,000		
47	Glen Arbor, Michigan												
48	Grand Haven, Michigan	101,150	300	53	286	52,413	49	407		1,276		39,200	
49	Green Bay, Wisconsin	101,369	96		68	26	53				70,374		
50	Kenosha, Wisconsin	35,808					13				9,274		
51	Kewaunee, Wisconsin	9,273		280			64				250		
52	Leland, Michigan												
53	Ludington, Michigan	276,229		183	965	60,160					4,583		
54	Manistee, Michigan	28,096		217	1,193	3,078		1,708			9,187		
55	Manistique, Michigan	3,690		644	560						1,600		
56	Manitowoc, Wisconsin	88,354									75,003		
57	Marinette, Wisconsin	4,244		16							2,870		
58	Menominee, Michigan	7,426					80				1,150		
59	Michigan city, Indiana	147,897							15				
60	Milwaukee, Wisconsin	1,584,254					40		80		907,743	12,312	
61	Montagne, Michigan	1,264	6	409	191	479					91		
62	Muskegon, Michigan	151,303	692	2,608	1,840	33		111		43	3,620		
63	Oconto, Wisconsin	342									700		
64	Pentwater, Michigan	469		181	181						107		
65	Peshigo Harbor, Wisconsin												
66	Petoskey, Michigan	1,701	90								15		
67	Port Washington, Wisconsin	21,197	1,500	252	3,610						3,500	1,680	
68	Racine, Wisconsin	159,312									67,000		
69	St. Joseph, Michigan	60,516				203					4,800		
70	Sheboygan, Wisconsin	115,995									50,000		
71	South Haven, Michigan	2,234		188	35								
72	Traverse city, Michigan	6,566	1,470	448	933						3,000		
73	Two Rivers, Michigan	5,693									1,200		
74	Waukegan, Illinois	10,959											

323

PORTS, WITH TOTALS FOR THE LAKES AND ST. LAWRENCE RIVER, OF ALL THE COMMODITIES EMBRACED UNDER TREATED OF IN TABLE 7.

PRODUCTS OF MINES AND QUARRIES—continued.			OTHER PRODUCTS.				MANUFACTURES.								Miscellaneous merchandise and other commodities.	
Stone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petroleum.	Sugar.	Iron, pig and bloom.	Other iron manufactures.	Liquors.	Cement, brick, and lime.	All other manufactures.			
311,015	296,513	15,997	63,513	1,215	6,857,237	18,912	28,120	100,434	162,248	300,939	9,650	58,256	16,750	822,011	1	
60,587	20,119		301	70	7,910		20,249	2,032	21,623	182,323	310	20,116		379,251	2	
	3,450									159,492		1,535		121,640	3	
	7											8			4	
35,374	7,851								21,489	15,702		11,745		95,310	5	
22,262					1,224							2,206		38,094	7	
11,951	224				175							450		4,117	8	
															9	
	73		301	70	6,511		509	158	134	119	310	399		1,837	11	
	6,537						19,740	1,874		7,016		3,698		116,827	12	
	1,977											75		1,426	13	
															14	
25,975	25,043	771			390,434		690		11,241	6,302		9,411		10,550	15	
					2,461										16	
600		225			4,200										17	
11,030	7	46			1,065		690		112			180		8,050	18	
	202				314,995				11,057	1,725		150			19	
	21,528				2,370										20	
					393				5						21	
	42				865				67			73			22	
	70				3,783										23	
															24	
14,375	420	500			51,918							9,000		2,500	25	
	70				387							8			26	
	49														27	
					6,030					4,577					28	
	2,655				1,222										29	
					755										30	
51,944	225,582	4,202	2,071	477	3,548,923		6,847	98,402	46,717	109,575	9,140	9,674	4,761	339,533	31	
															32	
	210				28,700							810		4,894	33	
1,020	35				13		65				39	10		260	34	
18,176	128,948	1,600	146		2,588,004			84,755	38,781	96,383	8,648			33,126	35	
	42				20									24	36	
	70				42							3,150			37	
288	34				150		720					282			38	
	14											4			39	
2,300														1,650	40	
	4,060									896				5,400	41	
2,248	65		1,473		1,435				504	391	75	69		906	42	
9,450	5,543	120		11	5,790		1,644	522	604	6,023	6	304	47	908	43	
					17,252		2			200				9,067	44	
	210	600			346		100			200	200	23		7,000	45	
										50				210,308	46	
	180			419						898	172			11,224	47	
												57		640	48	
	1,400	1,000	28		8,126		200			2,000		87		906	49	
	87				278									6,000	50	
1,362	8,483				134,842				3,185						51	
3,262	71,944	282	72		412,479		4,046	13,125	2,189	585		2,804	10	41,301	52	
															53	
12,113	52		952	36											54	
	42			11	110,530				1,438	1,960		825	4,704	814	55	
															56	
	210				505				6					875	57	
	420				10,235										58	
	140				92,153										59	
	700				53,839										60	
	1,400				61,295									3,300	61	
															62	
	140				1,871										63	
	490														64	
1,725	140				1,378		70					225		1,150	65	
	318				10,641							30			66	
															67	
															68	
															69	
															70	
															71	
															72	
															73	
															74	

TRAFFIC OPERA

TABLE 10.—FREIGHT RECEIPTS BY EXTENDED

[illegible]

325

LIST OF COMMODITIES, ETC.—Continued.

PRODUCTS OF MINES AND QUARRIES—continued.			OTHER PRODUCTS.				MANUFACTURES.							Miscellaneous merchandise and other commodities.	
Stone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petroleum.	Sugar.	Iron, pig and bloom.	Other iron manufactures.	Liquors.	Cement, brick, and lime.	All other manufactures.		
161,779	25,661	10,812	59,820		2,444,580		334		82,667	718		18,872	11,666	61,928	1
2,250					4,236										2
9,060		3,639	59,820		403,951		334		40,768			1,550	11,066	9,556	3
130,777	8,616				585,626				41,899	718		6,858		5,771	4
					17,146										5
		7,081			17,850										6
2,070					878										7
	2,310				10,388										8
					18,471										9
4,800	71				6,866										10
12,822	4,905				87,040										11
	9,729	92			282,399							10,464			12
					1,029,729										13
1,730	79	212	9	592	320,230	18,912						165	300	5,527	14
		12	9	503	16,014								300	366	15
					12,912										16
		200			125									10	17
	77			12	436							53			18
					308									530	19
				5											20
					650										21
					162										22
					283,058										23
					759							56		3,721	24
1,730	2			12	446							56		742	25
					288	6,974								140	26
					1,479										27
					75										28
					3,618	11,938									29
														18	30
	29		712	76	145,180					2,015	200	18	23	26,122	31
	29		7	16	789					2,015		14	11	107	32
			76	58	30										33
					2,200							4	12	600	34
				2	31										35
															36
			200		6,634										37
			426		135,273						200			25,415	38
			3												39
					23										40

TABLE 11.—FREIGHT SHIPMENTS BY EXTENDED LIST OF COMMODITIES—SHIPMENTS FROM ALL THE LAKE AND UNDER THE 4 COMPREHENSIVE CLASSES

		PRODUCTS OF AGRICULTURE.									PRODUCTS OF MINES AND QUARRIES.		
PORTS.		Total.	Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Total	25,266,974	969,150	1,929,614	503,117	894,123	26,184	10,105	2,024	73,751	6,105,799	7,677,107	29,442
2	Lake Superior	5,434,781	399,355	55,112	1,382	205,227	10	65	50	834	26,075	4,141,057	29,442
3	Ashland, Wisconsin	1,759,884										1,663,021	
4	Baraga, Michigan	59,278											
5	Bay Mills, Michigan	30,648			48								
6	Duluth, Minnesota	430,886	207,732	49,901	1,304	103,134				818			
7	Houghton, Michigan	78,144									25,075		25,900
8	Marquette, Michigan	1,567,539										1,541,495	
9	Ontonagon, Michigan	40,700											200
10	Pequaming, Michigan	54,193											
11	St. Marys Falls, Michigan	39,062			30	122	10	65	59	16	1,000		
12	Superior, Wisconsin	304,605	191,623	5,211		95,576							3,342
13	Two Harbors, Minnesota	936,541										936,541	
14	Washburn, Wisconsin	133,301				6,396							
15	Lakes Huron and St. Clair	2,344,451	81,417	27,760	6,204	4,829	2,390	2,530	108	1,828	13,574	62,451	
16	Algonac, Michigan	7,932											
17	Alpena, Michigan	374,899											
18	Bay City, Michigan	486,973											
19	Black River, Michigan	20,250											
20	Cheboygan, Michigan	184,417							48				
21	Detroit, Michigan	148,803	80,757	27,536	1,910	999	1,865			1,617	3,564	2,156	
22	East Saginaw, Michigan	199,852									10		
23	East Tawas, Michigan	229,344											
24	Forestville, Michigan	812	60		597				30	125			
25	Marine city, Michigan	15,426											
26	Marysville, Michigan	13,466			40								
27	Oscoda, Michigan	490,413			64			30				28	
28	Port Huron, Michigan	18,000									10,000		
29	Port Sanilac, Michigan	3,911	600		1,636			1,500					
30	Rogers city, Michigan	22,013											
31	St. Clair, Michigan	27,523			32			1,000					
32	St. Ignace, Michigan	83,827							30			60,267	
33	Sand Beach, Michigan	1,221			1,221								
34	Sebewaing, Michigan	5,369		224	704	3,830	525			86			
35	Lake Michigan	10,090,366	347,466	1,772,109	489,971	620,410	23,258	7,056	1,857	65,297	257	3,446,947	
36	Benton Harbor, Michigan	2,959					2,959						
37	Charlevoix, Michigan	53,909					43		109				
38	Chicago (a), Illinois	2,914,065	312,203	1,709,621	457,095	228,138		927	1,235	49,822			
39	Cross Village, Michigan	2,659	9						120				
40	De Pere, Wisconsin	3,253	6	38	162	1,043				4			
41	Elk Rapids, Michigan	31,088											
42	Escanaba, Michigan	3,430,832				4,508						3,364,067	
43	Fayette, Michigan	13,832	27										
44	Ford River, Michigan	81,568											
45	Fruitport, Michigan	6,272											
46	Gladstone, Michigan	155,234	1,500			70,854						82,880	
47	Glen Arbor, Michigan	4,741											
48	Grand Haven, Michigan	68,396				21							
49	Green Bay, Wisconsin	55,441	1,650	29	1,784	21,474	1	7	17	7	12		
50	Kenosha, Wisconsin	5,724			3						5		
51	Kewannee, Wisconsin	23,354	1,500		205			800	30	3,258			
52	Leland, Michigan	10,325											
53	Ludington, Michigan	351,398											
54	Manistee, Michigan	601,814						12					
55	Manistique, Michigan	140,321											
56	Manitowoc, Wisconsin	25,023	1,200	42	824	2,940		5,250	150	0,706			
57	Marinette, Wisconsin	342,002											
58	Menominee, Michigan	265,103											
59	Michigan city, Indiana	132			32			60			40		
60	Milwaukee, Wisconsin	351,554	29,191	1,434	28,847	289,174				16			
61	Montague, Michigan	71,084											
62	Muskegon, Michigan	851,440					57						
63	Oconto, Wisconsin	1,500											
64	Pewaukee, Michigan	32,642											
65	Peshigo Harbor, Wisconsin	80,683											
66	Petoskey, Michigan	3,930				297			45				
67	Port Washington, Wisconsin	11,107	180	238	299	600							
68	Racine, Wisconsin	1,225			80		350						
69	St. Joseph, Michigan	24,501				1,341	15,400			5,000			
70	Sheboygan, Wisconsin	8,392		707	640						200		
71	South Haven, Michigan	8,493					4,448		151	484			
72	Traverse, Michigan	54,200											
73	Two Rivers, Michigan	170				20							
74	Waukegan, Illinois												

a Including South Chicago.

327

RIVER PORTS, WITH TOTALS FOR THE LAKES AND ST. LAWRENCE RIVER, OF ALL THE COMMODITIES EMBRACED TREATED OF IN TABLE 7.

PRODUCTS OF MINES AND QUARRIES—continued.			OTHER PRODUCTS.				MANUFACTURES.							Miscellaneous merchandise and other commodities.		
Stone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petroleum.	Sugar.	Iron, pig and bloom.	Other iron manufactures.	Liquors.	Cement, brick, and lime.	All other manufactures.			
236, 214	252, 837	7, 590	59, 982	871	5, 348, 398		24, 462	2, 883	153, 976	19, 364	4, 586	123, 206	11, 985	800, 204	1	
17, 689	23	3, 627	1, 507	36	468, 157		73	16	26, 064	4	14	464		57, 889	2	
					80, 119				16, 621			123			3	
					59, 278										4	
					30, 800										5	
					13, 110									54, 887	6	
17, 080					9, 480										7	
					16, 004				10, 040						8	
					40, 500										9	
					54, 193										10	
	23		186	36	36, 468		73	16	3	4	14	341		596	11	
	3, 627		1, 321		3, 905										12	
					124, 500									2, 406	13	
	53, 480	3, 903		175	2, 036, 051				21, 482	177	54	10, 173		15, 865	14	
	7, 728				204										15	
	5, 377				373, 204									1, 695	16	
					481, 596										17	
					20, 250				112					5, 750	18	
					188, 507										19	
	882				10, 261				17, 062	146		48			20	
	12, 974	3, 903			199, 842										21	
	9, 859				212, 467										22	
					5, 567										23	
	294				13, 426										24	
					489, 062					31					25	
				175	22, 013									8, 000	26	
	10, 366														27	
					18, 752				4, 308		54	10, 125		416	28	
															29	
															30	
11, 466	173, 057	60	58, 475	660	2, 836, 236		5	2, 867	100, 473	440	2, 768	8, 898	11, 973	107, 451	31	
	8		55, 985		36, 882			2, 806	9, 961			115		6, 709	32	
				9	2, 106				7, 018	385	2, 518		11, 689	12, 449	33	
					1, 650				271					880	34	
	32		34		9, 501				21, 497					1, 720	35	
					51, 041				8, 002	58					36	
					81, 568				13, 805						37	
									6, 272						38	
					4, 741										39	
	350				34, 299				31, 360						40	
5, 716	11, 303		2	410	1, 164		5	1	1, 590	6	75	2, 643	40	2, 366	41	
														13, 212	42	
		60	13	55	10, 013							2, 250		5, 170	43	
	57, 221				9, 225									1, 100	44	
	105, 001			8	258, 520									35, 657	45	
					477, 785									18, 064	46	
					140, 321										47	
			36		5, 625							2, 250			48	
	42				341, 445							30		485	49	
					265, 103										50	
			2, 294						598						51	
					70, 917									110	52	
					840, 615									4, 825	53	
					1, 500										54	
					32, 642										55	
					80, 683										56	
					2, 348									000	57	
					9, 790										58	
															59	
															60	
															61	
															62	
															63	
															64	
															65	
															66	
															67	
															68	
5, 750											175	920		360	69	
														2, 760	70	
															71	
			1	53	3, 312										44	72
					54, 200											73
					150											74

TRAFFIC OPERA

TABLE 11.—FREIGHT SHIPMENTS BY EXTENDED

	PORTS.	Total.	PRODUCTS OF AGRICULTURE.							PRODUCTS OF MINES AND QUARRIES.			
			Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Lake Erie	6,386,392	140,912	74,528	5,560	63,657	250			215	5,196,182	26,644	
2	Ashtabula, Ohio	489,585									489,585		
3	Buffalo, New York	2,683,993									2,156,070		
4	Cleveland, Ohio	883,862		576						215	825,030	26,644	
5	Dunkirk, New York												
6	Erie, Pennsylvania	498,958									410,403		
7	Fairport, Ohio	59,438									59,438		
8	Huron, Ohio	56,486	486								56,000		
9	Kelleys Island, Ohio	212,182					250						
10	Lorain, Ohio	273,874									273,671		
11	Sandusky, Ohio	297,374	8,063								275,385		
12	Toledo, Ohio	930,610	132,363	73,952	5,560	63,657					650,000		
13	Tonawanda, New York												
14	Lake Ontario	771,727		1			276	454		69	764,355		
15	Cape Vincent, New York	421					176			9			
16	Charlotte, New York	350,043									350,000		
17	Chaumont, New York	35						35					
18	Dexter, New York												
19	Henderson, New York	431						419					
20	Millins Bay, New York												
21	Oak Orchard, New York												
22	Olcott, New York	53		1			47				5		
23	Oswego, New York	288,271									282,098		
24	Pultneyville, New York												
25	Sacketts Harbor, New York	107											
26	Sandy Creek, New York												
27	Sodus Point, New York	12,935									12,935		
28	Wilson, New York	114					53			60			
29	Youngstown, New York												
30	Fairhaven, New York	119,317									119,317		
31	St. Lawrence river	239,257		104						5,508	105,356	8	
32	Alexandria Bay, New York	153		104									
33	Chippewa Bay, New York	54								54			
34	Clayton, New York	309								90		8	
35	Massena, New York	188								188			
36	Grindstone Island, New York	4,450											
37	Morristown, New York	41,191									40,000		
38	Ogdensburg, New York	192,860								5,124	65,356		
39	Thousand Island Park, New York												
40	Waddington, New York	52								52			

329

LIST OF COMMODITIES, ETC.—Continued.

[illegible]

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERA

**TABLE 12.—FREIGHT MOVEMENT OF COMBINED RECEIPTS AND SHIPMENTS BY EXTENDED LIST OF COMMODITIES—
OF ALL THE COMMODITIES EMBRACED UNDER THE 4**

PORTS.		Total.	PRODUCTS OF AGRICULTURE.								PRODUCTS OF MINES AND QUARRIES.		
			Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Total	51,203,106	1,888,312	3,513,515	980,514	1,886,189	26,984	18,077	3,698	132,517	11,268,270	15,303,180	71,562
2	Lake Superior	7,925,930	399,355	55,134	1,846	205,720	166	298	426	965	1,780,750	4,151,748	23,442
3	Ashland, Wisconsin	2,247,242									201,241	1,663,021	
4	Baraga, Michigan	59,278											
5	Bay Mills, Michigan	32,037		14	208						1,200		
6	Duluth, Minnesota	1,114,048	207,732	49,901	1,304	103,134				818	485,000	10,691	
7	Houghton, Michigan	286,191									169,836		25,900
8	Marquette, Michigan	1,710,885		8							126,421	1,541,495	
9	Ontonagon, Michigan	40,700											200
10	Pequanning, Michigan	54,183											
11	St. Marys Falls, Michigan	76,125			334	615	186	298	426	147	25,978		
12	Superior, Wisconsin	1,180,297	191,623	5,211		95,576					720,000		3,342
13	Two Harbors, Minnesota	936,541										936,541	
14	Washburn, Wisconsin	188,393				6,395					51,614		
15	Lakes Huron and St. Clair	3,373,807	110,663	38,448	22,479	16,792	2,537	2,764	108	1,828	376,321	180,090	
16	Algonac, Michigan	17,586									7,193		
17	Alpena, Michigan	386,868		168	4,976						6,000		
18	Bay city, Michigan	553,219									51,000		
19	Black River, Michigan	22,293		140	1,200	186					500		
20	Cheboygan, Michigan	218,940	1,927	474	823				48		11,000		
21	Detroit, Michigan	764,553	82,576	31,778	2,850	999	2,012			1,617	145,464	119,463	
22	East Saginaw, Michigan	248,538									46,326		
23	East Tawas, Michigan	230,510									392	392	
24	Forestville, Michigan	1,817	60		597				30	125	25		
25	Marine city, Michigan	61,001				2					41,653		
26	Marysville, Michigan	13,466			40								
27	Oscoda, Michigan	480,413			64			30				28	
28	Port Huron, Michigan	170,073	24,000	5,600	8,000	11,760					34,000		
29	Port Sanilac, Michigan	4,501	600		1,636		1,500				175		
30	Rogers city, Michigan	22,504		64	336	5					37		
31	St. Clair, Michigan	41,553			32		1,000				8,000		
32	St. Ignace, Michigan	107,885					234		30		19,257	60,267	
33	Sand Beach, Michigan	11,867	1,500		1,221						5,269		
34	Sebawaing, Michigan	6,204		224	704	3,830	525			86	80		
35	Lake Michigan	18,571,258	352,019	1,778,318	500,596	738,833	23,567	12,722	1,988	72,174	2,865,278	4,451,577	
36	Benton Harbor, Michigan	37,573					2,959						
37	Charlevoix, Michigan	62,824	339	614	222	136	93		109		1,337	4,775	
38	Chicago and South Chicago, Illinois	7,984,038	312,203	1,769,621	457,095	229,998		4,327	1,271	55,380	1,329,364	731,188	
39	Cross Village, Michigan	2,670	9	3	8				120				
40	De Pere, Wisconsin	4,434	6	38	162	1,043				4	1,095		
41	Elk Rapids, Michigan	72,108	60	17	69						662	36,950	
42	Escanaba, Michigan	3,626,390				4,543					194,190	3,364,067	
43	Fayette, Michigan	37,389	27	20	48						703	22,621	
44	Ford River, Michigan	82,080		112	400								
45	Fruitport, Michigan	54,126										43,904	
46	Gladstone, Michigan	287,590	1,500			70,854					122,000	82,880	
47	Glen Arbor, Michigan	4,741											
48	Grand Haven, Michigan	169,546	300	53	286	52,434	49	407		1,278			
49	Green Bay, Wisconsin	166,810	1,746	29	1,852	21,500	54	7	17	7	70,386	39,200	
50	Kenosha, Wisconsin	41,532			3		13				9,279		
51	Kewannee, Michigan	32,627	1,500	280	205		64	800	30	3,258	250		
52	Leland, Michigan	10,325											
53	Ludington, Michigan	627,627		163	965	60,160					4,583		
54	Manistee, Michigan	629,910		217	1,193	3,078		1,720			9,187		
55	Manistique, Michigan	144,011		644	560						1,600		
56	Manitowoc, Wisconsin	113,377	1,200	42	824	2,940		5,250	150	6,706	75,000		
57	Marinette, Wisconsin	346,246			16						2,870		
58	Menominee, Michigan	272,529					80				1,150		
59	Michigan city, Indiana	148,029			32			60	15		40		
60	Milwaukee, Wisconsin	1,935,808	29,191	1,434	28,847	289,174		40	80	16	907,743	124,312	
61	Montague, Michigan	72,348	6	409	191	479	57				91		
62	Muskegon, Michigan	1,002,743	692	2,608	1,840	33		111		43	3,620		
63	Oconto, Wisconsin	1,842									300		
64	Pentwater, Michigan	33,111		181	181						107		
65	Peashtigo Harbor, Wisconsin	80,683											
66	Petoskey, Michigan	5,631				297			45		15		
67	Port Washington, Wisconsin	82,304	1,680	490	3,909	600					8,500	1,680	
68	Racine, Wisconsin	160,537			80		350				67,000		
69	St. Joseph, Michigan	85,017				1,544	15,400			5,000	4,800		
70	Sheboygan, Wisconsin	124,387		707	640						50,200		
71	South Haven, Michigan	10,727		188	35		4,448		151	484			
72	Traverse city, Michigan	60,766	1,470	448	933						3,000		
73	Two Rivers, Michigan	5,863				20					1,200		
74	Waukegan, Illinois	10,952											

331

TOTAL MOVEMENT TO AND FROM ALL LAKE PORTS, WITH TOTALS FOR EACH LAKE AND ST. LAWRENCE RIVER, COMPREHENSIVE CLASSES TREATED OF IN TABLE 7.

PRODUCTS OF MINES AND QUARRIES—continued.			OTHER PRODUCTS.				MANUFACTURES.								Miscellaneous merchandise and other commodities.	
Stone (all kinds).	Salt.	Other.	Animal products.	Live stock.	Lumber.	Ice.	Petroleum.	Sugar.	Iron, pig and bloom.	Other iron manufactures.	Liquors.	Cement, brick, and lime.	All other manufactures.			
547,220	549,350	23,587	123,495	2,086	12,205,655	18,912	52,582	103,317	316,224	320,303	14,236	181,462	28,735	1,623,115	1	
87,276	20,142	3,627	1,808	106	476,067		20,322	2,048	48,287	182,333	324	20,580		437,140	2	
	3,450				80,119				16,621	150,492		1,658		121,640	3	
	7				50,278							8			4	
35,374	7,851				30,600				21,489	15,702		11,745		150,197	5	
					13,110										6	
39,951					10,704							2,206		38,094	7	
11,951	224				16,179				10,040			450		4,117	8	
					40,500										9	
					54,193										10	
	96		487	106	42,979		582	174	137	123	324	740		2,433	11	
	6,537	3,627	1,321		3,905		19,740	1,874		7,016		3,698		116,827	12	
	1,977				124,500							75		3,832	13	
															14	
25,975	78,523	4,874		175	2,426,485		690		32,723	6,479	54	19,584		26,415	15	
	7,728				2,685										16	
600		225			373,204									1,695	17	
11,000	5,377	46			485,796										18	
	7				20,250										19	
	202				189,572		690		224			180		13,800	20	
	22,410				325,256				28,119	1,871		198			21	
	12,974	3,903			202,212										22	
	42				212,850				5						23	
9,929					865							73			24	
					9,350				67						25	
	294				13,426										26	
14,375	420	500		175	489,902					31		9,000		10,500	27	
	70				51,918							8			28	
	49				387										29	
	16,366				22,013										30	
	2,655				6,030				4,308	4,577	54	10,125		410	31	
					18,752										32	
					1,222										33	
					755										34	
63,410	399,539	4,262	61,146	1,137	6,385,159		6,852	101,269	147,190	110,024	11,908	18,572	16,734	446,984	35	
	210				28,700							810		4,894	36	
1,020	35				36,895		05		9,961		39	125		7,059	37	
18,176	128,956	1,600	56,131		2,590,110			87,621	45,799	96,768	11,166		11,680	45,575	38	
					1,650									880	39	
	42			9	20				271					1,744	40	
	70				9,633				21,497			3,159			41	
288	66		34		54,041		720		8,092	58		282			42	
	14				150				13,805			4			43	
2,300					81,568										44	
									6,272					1,650	45	
	4,060													5,400	46	
2,248	415		1,473		4,741					896					47	
9,450	16,846	120	2	421	35,734		1,649	523	31,864	391	75	69		3,272	48	
5,716					6,954		2		2,203	6,029	81	2,947	87	13,500	49	
					1,252					200				9,067	50	
	210	660	13	55	10,359		100			200	200	2,273		12,170	51	
	57,221				9,225									1,100	52	
	105,001			427	258,520					50				245,965	53	
	189				477,785					898	172		44	30,188	54	
					140,321							57		640	55	
	1,400	1,600	64		13,751		200			2,000		2,250			56	
	129				341,723							117		1,391	57	
	196				265,103									6,000	58	
1,362	8,483				134,842				3,195						59	
3,262	71,944	282	2,366		412,479		4,046	13,125	2,787	565		2,804	10	41,301	60	
12,113	52		952	36	70,917									110	61	
	42			11	968,145				1,438	1,989		825	4,704	5,639	62	
					1,500										63	
					32,642										64	
					80,683										65	
	210				2,853				6			690		1,425	66	
	420				20,025										67	
	140		110	125	92,152							20	200	360	68	
	700				53,839							974		2,760	69	
5,750	1,400				61,295						175	920		3,300	70	
	140		1	53	5,183									44	71	
	490				54,200							225			72	
1,725	140				1,528		70					30		1,150	73	
	818				10,641										74	

TRAFFIC OPERA

TABLE 12.—FREIGHT MOVEMENT OF COMBINED RECEIPTS AND

PORTS.		Total.	PRODUCTS OF AGRICULTURE.								PRODUCTS OF MINES AND QUARRIES.		
			Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Potatoes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Lake Erie	19,343,875	978,733	1,493,145	336,684	878,067	390	446		48,380	5,294,047	6,517,162	39,540
2	Ashtabula, Ohio	2,695,180									489,585	2,199,109	
3	Buffalo, New York	6,730,137	781,548	1,319,560	316,987	666,651	140	446		47,101	2,156,070	333,827	39,540
4	Cleveland, Ohio	3,621,570	22,494	1,010	685	252				999	826,230	1,978,208	
5	Dunkirk, New York	17,146											
6	Erie, Pennsylvania	1,271,988	33,779	98,623	13,452	147,507				280	410,403	418,426	
7	Fairport, Ohio	998,459									59,438	928,616	
8	Huron, Ohio	70,180	486								56,235	761	
9	Kelleys Island, Ohio	232,153					250				1,500		
10	Lorain, Ohio	620,773									273,671	335,162	
11	Sandusky, Ohio	602,403	8,063								276,946	208,411	
12	Toledo, Ohio	1,436,991	132,363	73,952	5,560	63,657					743,369	97,476	
13	Tonawanda, New York	1,046,895										17,166	
14	Lake Ontario	1,256,947	20,483	16,439	89,178	7	281	805	510	3,343	771,573		
15	Cape Vincent, New York	22,819	1,185	3	782		176	350	4	1,789	1,030		
16	Charlotte, New York	368,361			5,406						350,000		
17	Chaumont, New York	270						35			100		
18	Dexter, New York	2,169									1,480		
19	Henderson, New York	1,968						419			610		
20	Millins Bay, New York	119			1			1		2	110		
21	Oak Orchard, New York	650											
22	Olcott, New York	215		1			47				5		
23	Oswego, New York	691,118	19,297	16,434	78,340				506	1,491	282,098		
24	Pultneyville, New York	815											
25	Sacketts Harbor, New York	6,508	1	1			5				3,406		
26	Sandy creek, New York	622									482		
27	Sodus Point, New York	24,846			4,649						12,935		
28	Wilson, New York	1,593					53			60			
29	Youngstown, New York	75											
30	Fair Haven, New York	134,799				7				1	119,317		
31	St. Lawrence river	731,289	27,059	132,031	29,731	46,770	23	1,042	666	5,827	180,301	2,603	2,580
32	Alexandria Bay, New York	6,104		104			23		6	1	2,933		
33	Chippewa Bay, New York	84								54			
34	Clayton, New York	6,828	1	6	5					90	3,549	16	
35	Massena, New York	1,702		14						188	1,500		
36	Grindstone Island, New York	4,608			1			2			122		
37	Morristown, New York	48,380			144						40,000		
38	Ogdensburg, New York	662,904	27,058	131,907	29,581	46,770		1,040	660	5,440	131,587	2,587	2,580
39	Thousand Island Park, New York	115								2	110		
40	Waddington, New York	575								52	500		

TRAFFIC OPERA

TABLE 13.—TOTAL FREIGHT MOVEMENT BY EXTENDED LIST OF COMMODITIES—TOTAL SHIPMENT AND RECEIPTS—GIVEN ONLY BY LAKE

	LAKES AND RIVER.	Total.	PRODUCTS OF AGRICULTURE.								PRODUCTS OF MINES AND QUARRIES.		
			Wheat.	Corn.	Other grain.	Mill products.	Fruit.	Hay.	Pota- toes.	Other.	Coal and coke.	Iron ore.	Other ore.
1	Receipts and shipments	51,203,106	1,888,312	3,513,515	980,514	1,886,189	20,984	18,077	3,698	182,517	11,268,270	15,303,180	71,562
2	Lake Superior	7,925,930	399,355	55,134	1,846	205,720	186	298	426	965	1,780,750	4,151,748	29,442
3	Lakes Huron and St. Clair	8,373,807	110,683	38,448	22,479	16,792	2,537	2,764	108	1,828	876,321	180,090	.....
4	Lake Michigan	18,571,258	352,019	1,778,318	500,596	738,833	23,567	12,722	1,988	72,174	2,865,278	4,451,577	.....
5	Lake Erie	19,343,875	978,733	1,493,145	336,684	878,067	390	446	.....	48,380	5,294,047	6,517,162	39,540
6	Lake Ontario	1,256,947	20,483	16,439	89,178	7	281	805	510	3,343	771,578	.....	.....
7	St. Lawrence river	731,289	27,059	132,031	29,731	46,770	23	1,042	666	5,827	180,301	2,603	2,580
8	Receipts	25,936,132	919,162	1,583,901	477,397	992,066	800	7,972	1,674	58,766	5,162,471	7,626,073	42,120
9	Lake Superior	2,491,149	.....	22	404	493	176	233	367	131	1,754,675	10,691	.....
10	Lakes Huron and St. Clair	1,029,356	29,246	10,688	16,275	11,963	147	234	.....	.....	362,747	117,639	.....
11	Lake Michigan	8,480,892	4,553	6,209	10,625	118,423	309	5,666	121	6,877	2,865,021	1,004,630	.....
12	Lake Erie	12,957,483	837,821	1,418,617	331,124	814,410	140	446	.....	48,165	97,865	6,490,518	39,540
13	Lake Ontario	485,220	20,483	16,438	89,178	7	5	351	510	3,274	7,218	.....	.....
14	St. Lawrence river	492,032	27,059	131,927	29,731	46,770	23	1,042	666	319	74,945	2,595	2,580
15	Shipments	25,266,974	909,150	1,929,614	503,117	894,123	26,184	10,105	2,024	73,751	6,105,799	7,677,107	29,442
16	Lake Superior	5,434,781	399,355	55,112	1,382	205,227	10	65	50	834	26,075	4,141,057	29,442
17	Lakes Huron and St. Clair	2,344,451	81,417	27,760	6,204	4,829	2,390	2,530	108	1,828	13,574	92,451	.....
18	Lake Michigan	10,090,366	347,468	1,772,109	489,971	620,410	23,258	7,056	1,857	65,297	2,857	3,446,947	.....
19	Lake Erie	6,386,392	140,912	74,528	5,560	63,637	250	.....	.....	215	5,196,182	26,644	.....
20	Lake Ontario	771,727	.....	1	.....	.....	276	454	.....	60	764,355	.....	.....
21	St. Lawrence river	239,257	.....	104	.....	.....	.....	.....	.....	5,508	105,356	8	.....

335

OF ALL THE COMMODITIES EMBRACED WITHIN THE 4 COMPREHENSIVE CLASSES TREATED OF IN TABLE 7, BUT
AND RIVER TOTALS.

[illegible]

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERA

TABLE 14.—FREIGHT MOVEMENT OF UNCLASSIFIED COMMODITIES, NOT INCLUDED IN

[illegible]

TIONS—Continued.

THE FOREGOING TABLES, AND GIVEN BY THEIR VARIOUS UNITS OF MEASUREMENT.

[illegible]

STATISTICS OF TRANSPORTATION.

TRAFFIC OPERATIONS—Continued.

TABLE 15.—FREIGHT MOVEMENT OF UNCLASSIFIED COMMODITIES—REDUCTION OF THE UNCLASSIFIED COMMODITIES FROM THEIR VARIOUS UNITS OF MEASUREMENT INTO THE UNIFORM UNIT OF TONS.

COMMODITIES.	DESCRIPTION AND NUMBER OF UNITS OF MEASUREMENT.		Estimated weight in pounds per unit.	Estimated result in tons.	COMMODITIES.	DESCRIPTION AND NUMBER OF UNITS OF MEASUREMENT.		Estimated weight in pounds per unit.	Estimated result in tons.
	Number.	Unit.				Number.	Unit.		
Total	9,220,235		299.95	460,777.23	Jars	260	Cases	150.00	19.50
Merchandise	8,937,402	Packages	100.00	446,870.10	Crockery	239	do	500.00	59.75
Pound poles	4,071	Pound poles	550.00	1,119.53	Currants	30	Barrels	150.00	2.25
White lead	500	Pounds	1.00	0.25	Railroad iron	558	Bars	500.00	139.50
Household goods	42	Packages	100.00	2.10	Tobacco	159	Cases	450.00	35.76
Household goods	13	Lots	100.00	0.65	Fish poles	3,445	Fish poles	5.00	8.61
Vehicles	13	Vehicles	200.00	1.30	Barley	4	Bushels	48.00	0.10
Furniture	29	Bundles	100.00	1.45	Sundries	206,466	Packages	100.00	10,323.30
Empty barrels	7,442	Empty barrels	80.00	297.68	Blackberries	10	Gallons	10.00	0.05
Jugs	450	Jugs	10.00	2.25	Onions	800	Pounds	1.00	0.40
Trunks	8,031	Trunks	50.00	200.78	Chestnuts	100	do	1.00	0.05
Sash	25	Packages	100.00	1.25	Quinces	200	do	1.00	0.10
Piano	1	Piano	800.00	0.40	Paring pins	7,000	Paring pins	1.00	3.50
Pulp	560	Bales	100.00	28.00	Thrashing machines	30	Thrashing machines	6,000.00	90.00
Twine binders	1,000	Twine binders	300.00	150.00	Fan mills	300	Fan mills	500.00	75.00
Toys	25	Cases	100.00	1.25	Feed cutters	100	Feed cutters	500.00	25.00
Cabbages	2,000	Cabbages	10.00	10.00	Salt fish	4,454	Packages	200.00	445.40
Empty cases	696	Empty cases	25.00	8.70	Baskets	33,660	Bundles	50.00	841.50
					Rope	115	Coils	200.00	11.50
					Spikes	5	Kege	100.00	0.25

a Average weight per unit.

TABLE 16.—FREIGHT MOVEMENT BY CARGO TONNAGE—RESULT IN TONS OF THE LAKE AND RIVER FREIGHTING, GROUPED BY PRINCIPAL COMMODITIES, AND REACHED BY MAKING AN AGGREGATE OF EACH PORT'S LARGER BUSINESS, WHETHER OF RECEIPTS OR SHIPMENTS.

[Canadian coastwise trade excluded.]

COMMODITIES.	Amount in tons.	Per cent of commodities and class to total tonnage.	COMMODITIES.	Amount in tons.	Per cent of commodities and class to total tonnage.
Total	27,394,767	100.00	Class II.—Continued.		
Class I.—Products of agriculture	4,506,011	16.45	Iron ore	7,677,107	28.02
Wheat	969,150	3.54	Stone (all kinds)	311,015	1.14
Corn	1,929,614	7.04	Salt	296,513	1.08
Other grain	503,117	1.84	Other products of mines and quarries	58,117	0.21
Mill products	992,066	3.62			
All other farm products	112,064	0.41	Class III.—Other products	6,921,985	25.27
Class II.—Products of mines and quarries	14,448,551	52.74	Animal products	64,728	0.24
Coal	6,105,799	22.29	Lumber	6,897,237	25.03
			Class IV.—Manufactures, miscellaneous merchandise, and other commodities.	1,518,220	5.54

TRAFFIC OPERATIONS—Continued.

TABLE 17.—PASSENGER TRAFFIC—PASSENGER MOVEMENT ON ALL THE LAKES AND ST. LAWRENCE RIVER, THE ENTRIES ACCREDITED TO THE PRINCIPAL PORTS AND DIVIDED INTO THE CLASSES OF REGULAR, EXCURSION, AND FERRY PASSENGERS.

LAKES AND RIVER.	Total.	Regular.	Excursion.	Ferry.	LAKES AND RIVER.	Total.	Regular.	Excursion.	Ferry.
Total.....	2,235,993	775,871	836,648	623,474	Lake Erie.....	598,885	114,768	369,924	114,193
Lake Superior.....	155,609	78,131	8,407	69,071	Buffalo.....	122,419	35,399	46,738	40,282
Duluth.....	7,010		7,010		Erie.....	43,815	21,355	22,460	
Marquette.....	148,599	78,131	1,397	69,071	Sandusky.....	173,696	57,260	43,530	72,906
					Suspension Bridge.....	1,909	754	150	1,005
					Toledo.....	257,046		257,046	
Lake Huron.....	755,516	315,120	189,468	250,928	Lake Ontario.....	129,296	66,840	62,456	
Detroit.....	406,317	233,196	173,121		Cape Vincent.....	50,467	45,422	5,045	
Port Huron.....	349,199	81,924	16,347	250,928	Oswego.....	31,540	2,000	29,540	
					Rochester.....	47,289	19,418	27,871	
Lake Michigan.....	506,696	197,458	123,230	186,008	St. Lawrence river.....	89,901	3,554	83,163	3,274
Chicago.....	110,093	11,182	56,511	42,400	Alexandria Bay.....	12,600		12,600	
Grand Haven.....	329,870	177,302	8,960	143,608	Clayton.....	446		446	
Milwaukee.....	66,733	8,974	57,759		Ogdensburg.....	76,945	3,554	70,117	3,274

TABLE 18.—FREIGHT VALUES—STATEMENT SHOWING ESTIMATED VALUE OF THE LAKE FREIGHT COMPUTED ON THE BASIS OF CARGO TONNAGE IN TABLE 16.

COMMODITIES.	Number of tons.	Estimated value per ton.	Estimated value of total tons.	COMMODITIES.	Number of tons.	Estimated value per ton.	Estimated value of total tons.
Total.....	27,394,767	\$13.12	\$359,482,437	Stone.....	311,015	\$10.00	\$3,110,150
Wheat.....	969,150	32.67	31,662,131	Salt.....	296,513	10.00	2,965,130
Corn.....	1,929,614	15.00	28,944,210	Other products of mines and quarries.....	58,117	155.38	9,030,140
Other grain.....	503,117	39.22	19,732,249	Animal products.....	61,728	100.00	6,172,800
Mill products.....	992,066	50.00	49,603,300	Lumber.....	6,857,257	10.30	70,629,747
All other farm products.....	112,064	89.79	10,062,215	Manufactures, miscellaneous merchandise, and other commodities. (a)	1,518,220	54.33	82,464,892
Coal.....	6,106,799	3.50	21,370,297				
Iron ore.....	7,677,107	3.05	23,415,176				

(a) Not including the unclassified merchandise given in Table 15.

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS.

TABLE 19.—FINANCIAL ACCOUNT IN GENERAL—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF 1,841 REPORTING *a*) CRAFT GIVEN SEPARATELY BY STEAMERS, SAILING VESSELS, AND UNRIGGED, AND ENTERED FOR EACH PORT AND EACH LAKE.

ALL CRAFT.				STEAMERS—Continued.			
PORTS.	Gross earnings.	Expenses.	Net earnings.	PORTS.	Gross earnings.	Expenses.	Net earnings.
Total	\$24,369,895	\$19,443,241	\$4,926,654	Lake Ontario	\$140,339	\$129,829	\$10,510
Lake Superior	1,197,586	1,029,151	168,435	Cape Vincent	56,843	50,310	6,533
Duluth	92,181	77,585	14,596	Oswego	35,235	33,703	1,532
Marquette	1,105,405	951,566	153,839	Rochester	48,261	45,816	2,445
Lake Huron	6,955,133	5,349,465	1,605,668	St. Lawrence river	335,250	234,673	100,577
Detroit	3,792,600	2,812,931	979,669	Alexandria Bay	12,197	8,612	3,585
Port Huron	3,162,533	2,536,534	625,999	Clayton	1,100	634	466
Lake Michigan	5,826,148	4,843,150	982,998	Ogdensburg	321,953	225,427	96,526
Chicago	2,111,312	1,844,654	266,658	SAILING VESSELS.			
Grand Haven	1,316,530	1,127,899	188,631	Total	6,480,424	5,513,536	966,888
Milwaukee	2,398,306	1,870,606	527,700	Lake Superior	216,729	189,636	27,093
Lake Erie	9,649,090	7,621,541	2,027,549	Duluth	216,729	189,636	27,093
Buffalo	2,785,853	2,194,577	591,276	Marquette	216,729	189,636	27,093
Cleveland	4,344,697	3,441,929	902,768	Lake Huron	2,168,585	1,786,731	381,854
Erie	886,634	719,905	166,729	Detroit	847,471	683,159	164,312
Sandusky	868,840	683,054	185,786	Port Huron	1,321,114	1,103,572	217,542
Suspension Bridge	200,321	166,026	34,295	Lake Michigan	1,703,669	1,467,024	236,645
Toledo	562,745	416,050	146,695	Chicago	729,614	630,888	98,726
Lake Ontario	335,483	302,658	32,825	Grand Haven	352,229	317,381	34,848
Cape Vincent	104,713	88,069	16,644	Milwaukee	621,826	518,755	103,071
Oswego	133,255	127,157	6,098	Lake Erie	2,179,345	1,881,839	297,506
Rochester	97,515	87,432	10,083	Buffalo	409,487	352,903	56,584
St. Lawrence river	406,455	297,267	109,188	Cleveland	1,128,842	992,019	136,823
Alexandria Bay	12,197	8,612	3,585	Erie	18,918	13,980	4,938
Clayton	1,100	634	466	Sandusky	346,526	284,759	61,767
Ogdensburg	393,158	288,021	105,137	Suspension Bridge	84,191	72,861	11,330
STEAMERS.				Toledo	391,381	165,377	239,004
Total	17,808,329	13,861,485	3,946,844	Lake Ontario	195,144	172,829	22,315
Lake Superior	962,150	825,688	136,462	Cape Vincent	47,870	37,759	10,111
Duluth	92,181	77,585	14,596	Oswego	98,020	93,454	4,566
Marquette	869,969	748,103	121,866	Rochester	49,254	41,616	7,638
Lake Huron	4,786,548	3,562,734	1,223,814	St. Lawrence river	16,952	15,417	1,535
Detroit	2,945,129	2,129,772	815,357	Alexandria Bay			
Port Huron	1,841,419	1,432,962	408,457	Clayton			
Lake Michigan	4,122,479	3,376,135	746,344	Ogdensburg	16,952	15,417	1,535
Chicago	1,381,698	1,213,766	167,932	UNRIGGED.			
Grand Haven	964,301	810,518	153,783	Total	81,142	68,220	12,922
Milwaukee	1,776,480	1,351,851	424,629	Lake Superior	18,707	13,827	4,880
Lake Erie	7,461,563	5,732,426	1,729,137	Marquette	18,707	13,827	4,880
Buffalo	2,368,184	1,834,458	533,726	Lake Erie	8,182	7,216	966
Cleveland	3,215,855	2,449,910	765,945	Buffalo	8,182	7,216	966
Erie	867,716	705,925	161,791	St. Lawrence river	54,253	47,177	7,076
Sandusky	522,314	398,295	124,019				
Suspension Bridge	116,130	93,163	22,965				
Toledo	371,364	250,673	120,691				

a Steamers, 1,072; sailing vessels, 758; unrigger, 11. See supplementary table below.**SUPPLEMENTARY—ESTIMATED GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF 896 CRAFT NOT REPORTING THESE ITEMS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1,841 CRAFT.**

CLASS OF VESSELS.	Number of vessels.	Gross earnings.	Expenses.	Net earnings.	CLASS OF VESSELS.	Number of vessels.	Gross earnings.	Expenses.	Net earnings.
Total	896	\$11,093,957	\$8,448,811	\$2,645,146	Sailing vessels	204	\$1,760,221	\$1,497,593	\$262,628
Steamers	305	7,140,938	5,107,027	2,033,911	Unrigged	297	2,192,798	1,843,591	349,207

TRANSPORTATION ON THE GREAT LAKES.

341

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL—ITEMIZED EXPENSE ACCOUNT OF 1,841 REPORTING (a) CRAFT, GIVEN SEPARATELY, FOR STEAMERS, SAILING VESSELS, AND UNRIGGED, SUBDIVIDED INTO THE VARIOUS ITEMS CONSTITUTING THE RUNNING AND SHORE EXPENSES.

ALL CRAFT.							
LAKES AND RIVER.	Class.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.
Total.....	All classes.....	\$19,443,241	\$895,140	\$5,676,802	\$1,322,025	\$1,681,094	\$2,975,915
Great Lakes and St. Lawrence river.....	Steam.....	13,861,485	412,193	4,235,980	990,678	1,158,494	2,975,915
	Sail.....	5,513,536	465,248	1,422,957	326,207	522,557	
	Unrigged.....	68,220	17,699	17,865	4,040	643	
Lake Superior.....	All classes.....	1,029,151	67,771	322,173	80,209	76,515	200,405
	Steam.....	825,688	40,450	279,093	66,671	57,364	200,405
	Sail.....	189,636	24,189	40,307	12,678	18,849	
	Unrigged.....	13,827	3,132	2,773	860	302	
Duluth.....	Steam.....	77,585	2	32,149	6,537	7,995	15,061
Marquette.....	All classes.....	951,566	67,769	290,024	73,672	68,520	185,344
	Steam.....	748,103	40,448	246,944	60,134	49,369	185,344
	Sail.....	189,636	24,189	40,307	12,678	18,849	
	Unrigged.....	13,827	3,132	2,773	860	302	
Lake Huron.....	All classes.....	5,349,465	346,364	1,475,828	363,117	527,793	745,130
	Steam.....	3,562,734	124,394	1,105,881	271,668	348,815	745,130
	Sail.....	1,786,731	221,970	369,947	91,449	178,978	
Detroit.....	All classes.....	2,812,931	67,949	766,335	201,964	307,339	411,078
	Steam.....	2,129,772	38,091	626,589	169,535	248,556	411,078
	Sail.....	683,159	29,858	139,746	32,429	58,783	
Port Huron.....	All classes.....	2,536,534	278,415	709,493	161,153	220,454	334,052
	Steam.....	1,432,902	86,303	479,292	102,133	100,259	334,052
	Sail.....	1,103,572	192,112	230,201	59,020	120,195	
Lake Michigan.....	All classes.....	4,843,159	312,093	1,666,268	366,462	426,488	625,071
	Steam.....	3,376,135	109,067	1,140,815	256,676	253,580	625,071
	Sail.....	1,467,024	143,926	525,453	109,786	172,908	
Chicago.....	All classes.....	1,844,654	87,047	667,549	140,394	162,602	227,702
	Steam.....	1,213,766	31,262	446,404	94,397	82,289	227,702
	Sail.....	630,888	55,785	221,145	45,997	80,313	
Grand Haven.....	All classes.....	1,127,899	60,315	424,532	92,245	95,430	148,405
	Steam.....	810,518	21,875	305,414	65,822	66,611	148,405
	Sail.....	317,381	38,440	119,118	26,423	28,819	
Milwaukee.....	All classes.....	1,870,606	165,631	574,187	133,823	168,456	248,964
	Steam.....	1,351,851	115,930	388,997	96,457	104,680	248,964
	Sail.....	518,755	49,701	185,190	37,366	63,776	
Lake Erie.....	All classes.....	7,021,541	125,324	2,021,736	461,289	621,563	1,333,833
	Steam.....	5,732,426	59,450	1,591,422	368,247	478,706	1,333,833
	Sail.....	1,681,890	65,874	423,148	93,042	142,807	
	Unrigged.....	7,216		7,166		50	
Buffalo.....	All classes.....	2,194,577	29,766	611,058	142,982	166,848	528,315
	Steam.....	1,834,458	20,292	533,469	127,336	148,119	528,315
	Sail.....	352,903	9,474	70,424	15,646	18,679	
	Unrigged.....	7,216		7,166		50	
Cleveland.....	All classes.....	3,441,929	38,919	875,722	179,694	208,118	498,948
	Steam.....	2,449,910	14,960	652,146	131,313	218,654	498,948
	Sail.....	992,019	23,959	223,576	48,381	79,264	
Erie.....	All classes.....	719,905	2,941	176,716	49,445	67,877	145,258
	Steam.....	705,925	4	174,087	48,821	67,103	145,258
	Sail.....	13,980	2,937	2,629	624	774	
Sandusky.....	All classes.....	683,054	40,608	196,222	49,689	42,306	90,652
	Steam.....	398,295	20,132	127,533	33,528	19,006	90,652
	Sail.....	284,759	20,476	68,689	16,161	23,300	
Suspension Bridge.....	All classes.....	166,026	21	37,905	10,743	15,581	23,612
	Steam.....	93,165	5	26,355	7,415	11,199	23,612
	Sail.....	72,861	16	11,550	3,328	4,382	
Toledo.....	All classes.....	416,050	13,069	124,113	28,736	30,833	47,048
	Steam.....	250,673	4,057	77,833	19,834	14,425	47,048
	Sail.....	165,377	9,012	46,280	8,902	16,408	

a Steamers, 1,072; sailing vessels, 758; unrigger, 11. See supplementary table, page 105.

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

ALL CRAFT—Continued.

LAKES AND RIVER.	Class.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.
Lake Ontario	All classes.....	\$302,658	\$10,071	\$122,204	\$32,931	\$19,019	\$24,818
	Steam	129,829	800	61,991	13,599	10,704	24,818
	Sail	172,829	9,271	60,213	19,332	8,315	
Cape Vincent	All classes.....	88,069	3,203	37,421	17,065	5,147	11,724
	Steam	50,310	290	21,485	7,624	3,812	11,724
	Sail	37,759	2,913	15,936	9,441	1,335	
Oswego	All classes.....	127,157	6,308	46,012	9,550	8,383	6,083
	Steam	33,703		16,726	2,979	2,207	6,083
	Sail	93,454	6,308	29,286	6,571	6,176	
Rochester	All classes.....	87,432	560	38,771	6,316	5,489	7,011
	Steam	45,816	510	23,780	2,996	4,685	7,011
	Sail	41,616	50	14,991	3,320	804	
St. Lawrence river	All classes.....	297,267	32,617	68,593	18,917	10,316	46,658
	Steam	234,673	18,932	56,778	13,817	9,325	46,658
	Sail	15,417	18	3,889	1,920	700	
	Unrigged.....	47,177	14,567	7,926	3,180	291	
Alexandria Bay	Steam	8,612	206	3,466	300	450	2,242
Clayton	Steam	634		540			75
Ogdensburg	All classes.....	288,021	32,411	64,587	18,617	9,866	44,341
	Steam	225,427	17,826	52,772	13,517	8,875	44,341
	Sail	15,417	18	3,889	1,920	700	
	Unrigged.....	47,177	14,567	7,926	3,180	291	

TRANSPORTATION ON THE GREAT LAKES.

343

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

ALL CRAFT—Continued.

LAKES AND RIVER.	Class.	Other running expenses.	Commissaion.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total.....	All classes.....	\$4,353,323	\$158,863	\$885,303	\$138,773	\$235,085	\$1,119,418
Great Lakes and St. Lawrence river.....	Steam.....	2,206,582	105,079	679,453	108,733	235,085	693,293
	Sail.....	2,062,546	53,274	203,632	29,960		425,125
	Unrigged.....	24,195	510	2,218	50		1,000
Lake Superior.....	All classes.....	216,176	1,125	33,066	4,653	7,993	19,065
	Steam.....	131,829	896	27,852	3,946	7,993	9,189
	Sail.....	77,667	199	5,214	657		9,876
	Unrigged.....	6,680	30		50		
Duluth.....	Steam.....	9,583		1,660	649	3,909	10
Marquette.....	All classes.....	206,593	1,125	31,406	4,004	4,054	19,055
	Steam.....	122,246	896	26,192	3,297	4,054	9,179
	Sail.....	77,667	199	5,214	657		9,876
	Unrigged.....	6,680	30		50		
Lake Huron.....	All classes.....	1,184,879	30,439	267,757	42,139	74,911	291,108
	Steam.....	460,967	16,581	197,838	33,914	74,911	182,635
	Sail.....	723,912	13,858	69,919	8,225		108,473
Detroit.....	All classes.....	572,104	15,873	162,817	25,713	59,079	222,680
	Steam.....	276,308	7,902	126,847	21,749	59,079	144,038
	Sail.....	295,796	7,971	35,970	3,964		78,642
Port Huron.....	All classes.....	612,775	14,566	104,940	16,426	15,832	68,428
	Steam.....	184,659	8,679	70,991	12,165	15,832	38,597
	Sail.....	428,116	5,887	33,949	4,261		29,831
Lake Michigan.....	All classes.....	888,508	69,743	181,787	33,500	80,828	191,511
	Steam.....	501,236	61,652	154,086	27,840	80,828	105,284
	Sail.....	387,272	8,091	27,701	5,660		86,227
Chicago.....	All classes.....	337,904	49,272	61,793	5,566	22,563	82,262
	Steam.....	180,794	43,943	38,793	3,845	22,563	41,774
	Sail.....	157,110	5,329	23,000	1,721		40,488
Grand Haven.....	All classes.....	201,737	3,048	32,357	8,990	17,140	43,700
	Steam.....	113,850	1,710	32,267	7,371	17,140	30,053
	Sail.....	87,887	1,338	90	1,619		13,647
Milwaukee.....	All classes.....	348,867	17,423	87,637	18,944	41,125	65,549
	Steam.....	206,592	15,999	83,026	16,624	41,125	33,457
	Sail.....	142,275	1,424	4,611	2,320		32,092
Lake Erie.....	All classes.....	1,917,147	49,181	369,298	57,239	67,408	597,523
	Steam.....	1,103,575	19,962	277,325	41,831	67,408	390,667
	Sail.....	813,572	29,219	91,973	15,408		206,856
	Unrigged.....						
Buffalo.....	All classes.....	495,959	7,936	74,452	1,005	8,495	127,761
	Steam.....	329,542	4,185	53,906	580	8,495	80,160
	Sail.....	166,417	3,751	20,486	425		47,601
	Unrigged.....						
Cleveland.....	All classes.....	904,218	30,086	239,467	45,364	43,176	288,217
	Steam.....	521,452	11,685	182,141	34,383	43,176	140,852
	Sail.....	382,766	18,401	57,326	10,981		147,365
Erie.....	All classes.....	114,313	211	3,099			160,045
	Steam.....	107,297	211	3,099			160,045
	Sail.....	7,016					
Sandusky.....	All classes.....	207,647	6,835	31,753	6,993	3,508	6,841
	Steam.....	71,419	2,563	21,915	4,503	3,508	3,536
	Sail.....	136,228	4,272	9,838	2,490		3,305
Suspension Bridge.....	All classes.....	71,394	410	1,600	25	805	3,930
	Steam.....	19,239	160	1,600	25	805	2,750
	Sail.....	52,155	250				1,180
Toledo.....	All classes.....	123,616	3,793	18,927	3,852	11,424	10,729
	Steam.....	54,626	1,158	14,604	2,340	11,424	3,324
	Sail.....	68,990	2,545	4,323	1,512		7,405

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued

ALL CRAFT—Continued.

LAKES AND RIVER.	Class.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Lake Ontario.....	All classes.....	\$60,235	\$3,543	\$11,681	\$694	\$933	\$16,529
	Steam	8,302	1,636	3,556	654	933	2,836
	Sail.....	51,933	1,907	8,125	40		13,693
Cape Vincent	All classes.....	9,481	873	1,905	215	583	452
	Steam	2,935	518	937	200	583	202
	Sail.....	6,546	355	968	15		250
Oswego	All classes.....	30,202	2,403	7,460	33		10,723
	Steam	1,581	1,115	1,420	8		1,564
	Sail.....	28,621	1,288	6,040	25		9,159
Rochester	All classes.....	20,552	267	2,316	446	350	5,354
	Steam	3,786	3	1,199	446	350	1,050
	Sail.....	16,766	264	1,117			4,304
St. Lawrence river	All classes.....	86,378	4,832	21,714	548	3,012	3,682
	Steam	60,673	4,352	18,796	548	3,012	2,682
	Sail.....	8,190		700			
	Unrigged....	17,515	480	2,218			1,000
Alexandria Bay	Steam	1,948					
Clayton	Steam	19					
Ogdensburg	All classes.....	84,411	4,832	21,714	548	3,012	3,682
	Steam	58,706	4,352	18,796	548	3,012	2,682
	Sail.....	8,190		700			
	Unrigged....	17,515	480	2,218			1,000

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

STEAMERS.

LAKES AND RIVER.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel.
Total.....	\$13,861,485	\$412,193	\$4,235,980	\$990,678	\$1,158,494	\$2,975,915
Lake Superior.....	825,688	40,450	279,093	66,671	57,364	200,405
Duluth.....	77,585	2	32,149	6,537	7,995	15,061
Marquette.....	748,103	40,448	246,944	60,134	49,369	185,344
Lake Huron.....	3,562,734	124,394	1,105,881	271,668	348,815	745,130
Detroit.....	2,129,772	38,091	626,589	169,535	248,556	411,078
Port Huron.....	1,432,962	86,303	479,292	102,133	100,259	334,052
Lake Michigan.....	3,376,135	169,067	1,140,815	256,676	253,580	625,071
Chicago.....	1,213,766	31,262	446,404	94,397	82,289	227,702
Grand Haven.....	810,518	21,875	305,414	65,822	66,611	148,405
Milwaukee.....	1,351,851	115,930	388,997	96,457	104,680	248,964
Lake Erie.....	5,732,426	59,450	1,591,422	368,247	478,706	1,333,833
Buffalo.....	1,634,458	20,292	533,468	127,336	148,119	528,315
Cleveland.....	2,449,910	14,960	652,146	131,313	218,854	498,948
Erie.....	705,025	4	174,087	48,821	67,103	145,258
Sandusky.....	398,295	20,132	127,533	33,528	19,008	90,652
Suspension Bridge.....	93,185	5	28,355	7,415	11,199	23,612
Toledo.....	250,673	4,057	77,833	19,834	14,425	47,048
Lake Ontario.....	129,829	800	61,901	13,599	10,704	24,818
Cape Vincent.....	50,310	290	21,485	7,624	3,812	11,724
Oswego.....	33,703		16,726	2,979	2,207	6,083
Rochester.....	45,816	510	23,780	2,996	4,685	7,011
St. Lawrence river.....	234,673	18,032	56,778	13,817	9,325	46,658
Alexandria Bay.....	8,612	206	3,466	300	450	2,242
Clayton.....	634		540			75
Ogdensburg.....	225,427	17,826	52,772	13,517	8,875	44,341

LAKES AND RIVER.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total.....	\$2,266,582	\$105,079	\$679,453	\$108,733	\$235,085	\$693,293
Lake Superior.....	131,829	896	27,852	3,946	7,993	9,189
Duluth.....	9,583		1,660	649	3,939	10
Marquette.....	122,246	896	26,192	3,297	4,054	9,179
Lake Huron.....	460,967	16,581	197,838	33,914	74,911	182,635
Detroit.....	276,308	7,902	126,847	21,749	59,079	144,038
Port Huron.....	184,659	8,679	70,991	12,165	15,832	38,597
Lake Michigan.....	501,236	61,652	154,086	27,840	80,828	105,284
Chicago.....	180,794	43,043	38,793	3,845	22,563	41,774
Grand Haven.....	113,850	1,710	32,267	7,371	17,140	30,053
Milwaukee.....	206,592	15,999	83,026	16,624	41,125	33,457
Lake Erie.....	1,103,575	19,962	277,325	41,831	67,408	390,667
Buffalo.....	329,542	4,185	53,966	580	8,495	80,160
Cleveland.....	521,452	11,685	182,141	34,383	43,170	140,852
Erie.....	107,297	211	3,099			160,045
Sandusky.....	71,419	2,563	21,915	4,503	3,508	3,536
Suspension Bridge.....	19,239	100	1,600	25	805	2,750
Toledo.....	54,626	1,158	14,604	2,340	11,424	3,324
Lake Ontario.....	8,302	1,636	3,556	654	933	2,836
Cape Vincent.....	2,935	518	937	200	583	202
Oswego.....	1,581	1,115	1,420	8		1,584
Rochester.....	3,786	3	1,199	446	350	1,050
St. Lawrence river.....	60,673	4,352	18,796	548	3,012	2,682
Alexandria Bay.....	1,948					
Clayton.....	19					
Ogdensburg.....	58,706	4,352	18,796	548	3,012	2,682

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

SAILING VESSELS.

LAKES AND RIVER.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel.
Total.....	\$5,513,536	\$465,248	\$1,422,957	\$328,207	\$522,557	
Lake Superior.....	189,636	24,189	40,307	12,678	18,849	
Duluth.....						
Marquette.....	189,636	24,189	40,307	12,678	18,849	
Lake Huron.....	1,786,731	221,970	369,947	91,449	178,978	
Detroit.....	683,159	29,858	139,746	32,429	58,783	
Port Huron.....	1,103,572	192,112	230,201	59,020	120,195	
Lake Michigan.....	1,467,024	143,926	525,453	109,786	172,908	
Chicago.....	630,888	55,785	221,145	45,997	80,313	
Grand Haven.....	317,381	38,440	119,118	26,423	28,819	
Milwaukee.....	518,755	49,701	185,190	37,366	63,776	
Lake Erie.....	1,881,899	65,874	423,148	93,042	142,807	
Buffalo.....	352,903	9,474	70,424	15,646	18,679	
Cleveland.....	992,019	23,859	223,578	48,381	79,264	
Erie.....	13,980	2,927	2,629	624	774	
Sandusky.....	284,759	20,476	68,689	16,161	23,300	
Suspension Bridge.....	72,861	16	11,550	3,328	4,382	
Toledo.....	165,377	9,012	46,280	8,902	16,408	
Lake Ontario.....	172,829	9,271	60,213	19,332	8,315	
Cape Vincent.....	37,759	2,913	15,936	9,441	1,335	
Oswego.....	93,454	6,308	29,286	6,571	6,176	
Rochester.....	41,616	50	14,991	3,320	804	
St. Lawrence river.....	15,417	18	3,889	1,920	700	
Alexandria Bay.....						
Clayton.....						
Ogdensburg.....	15,417	18	3,889	1,920	700	
LAKES AND RIVER.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total.....	\$2,062,546	\$53,274	\$203,632	\$39,990		\$425,125
Lake Superior.....	77,667	199	5,214	657		9,876
Duluth.....						
Marquette.....	77,667	199	5,214	657		9,876
Lake Huron.....	723,912	13,858	69,919	8,225		108,473
Detroit.....	295,796	7,971	35,970	3,064		78,642
Port Huron.....	428,116	5,887	33,949	4,261		29,831
Lake Michigan.....	387,272	8,091	27,701	5,660		86,257
Chicago.....	157,110	5,329	23,000	1,721		40,486
Grand Haven.....	87,887	1,338	90	1,619		13,647
Milwaukee.....	142,275	1,424	4,611	2,320		32,092
Lake Erie.....	813,572	29,219	91,973	15,408		206,856
Buffalo.....	166,417	3,751	20,486	425		47,601
Cleveland.....	382,766	18,401	57,326	10,981		147,365
Erie.....	7,016					
Sandusky.....	136,228	4,272	9,858	2,490		3,305
Suspension Bridge.....	52,155	250				1,180
Toledo.....	68,990	2,545	4,323	1,512		7,405
Lake Ontario.....	51,933	1,907	8,125	40		13,603
Cape Vincent.....	6,546	355	968	15		250
Oswego.....	28,621	1,288	6,040	25		9,139
Rochester.....	16,766	264	1,117			4,304
St. Lawrence river.....	8,190		700			
Alexandria Bay.....						
Clayton.....						
Ogdensburg.....	8,190		700			

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 20.—EXPENSE ACCOUNT IN DETAIL, ETC.—Continued.

UNRIGGED.

LAKES AND RIVER.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel.
Total	\$68,220	\$17,699	\$17,865	\$4,040	\$643	.....
Lake Superior: Marquette	13,827	3,132	2,773	860	302	.....
Lake Erie: Buffalo	7,216	.....	7,166	.....	50	.....
St. Lawrence river: Ogdensburg	47,177	14,567	7,926	3,180	291	.....

LAKES AND RIVER.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total	\$24,165	\$510	\$2,218	\$50	.....	\$1,000
Lake Superior: Marquette	6,680	30	.....	50	.....	.....
Lake Erie: Buffalo .....	.....	.....	.....	.....	.....	.....
St. Lawrence river: Ogdensburg	17,515	480	2,218	.....	.....	1,000

SUPPLEMENTARY—ESTIMATED ITEMIZED EXPENSE ACCOUNT OF 896 CRAFT NOT REPORTING THESE DETAILS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1,841 CRAFT.

CLASS OF VESSELS.	Number of vessels.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel.
Total	896	\$8,448,811	\$755,952	\$2,421,389	\$562,378	\$584,233	\$1,096,536
Steamers	395	5,107,627	151,881	1,560,915	365,035	426,869	1,096,536
Sailing vessels	204	1,497,593	124,569	381,046	87,897	139,946	.....
Unrigged	297	1,843,591	479,482	479,428	109,446	17,418	.....

CLASS OF VESSELS.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Total	\$2,043,005	\$66,800	\$364,982	\$70,511	\$86,623	\$396,402
Steamers	835,168	38,718	250,359	40,065	86,623	255,418
Sailing vessels	552,371	14,267	54,534	29,090	.....	113,853
Unrigged	655,466	13,815	60,089	1,356	.....	27,091

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.—EMPLOYEES AND WAGES BY PORTS—MONTHLY WAGES PAID TO ALL EMPLOYEES OF 1,841 REPORTING (a) CRAFT, WITH SEPARATE ENTRIES FOR STEAMERS, SAILING VESSELS, AND UNRIGGED, GIVEN IN DETAIL.

STEAMERS.

PORTS.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGINEERS.		SECOND ENGINEERS.		WHEELMEN.		LOOKOUTS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total.....	1,069	\$116,678	577	\$41,289	339	\$19,663	117	\$7,751	1,067	\$93,193	597	\$37,159	1,040	\$37,452	565	\$19,078
Superior.....	90	9,156	33	2,178	12	722	6	310	94	7,976	39	2,350	51	1,800	18	577
Duluth.....	20	1,620	1	50					24	1,810	1	40	1	50		
Marquette.....	70	7,536	32	2,128	12	722	6	310	70	6,166	38	2,310	50	1,750	18	577
Huron.....	250	27,607	180	12,468	82	4,591	40	2,644	249	22,402	178	11,277	323	10,841	155	5,215
Detroit.....	113	13,551	91	6,409	49	2,861	30	2,049	113	10,947	88	5,749	163	5,619	93	3,229
Port Huron.....	137	14,056	89	6,059	33	1,730	10	595	136	11,455	90	5,528	160	5,222	62	1,986
Michigan.....	323	33,067	141	9,575	68	3,809	42	2,850	327	27,010	156	9,193	239	8,842	85	2,823
Chicago.....	112	13,184	39	2,858	21	1,195	10	990	114	10,353	51	3,010	69	2,741	27	891
Grand Haven.....	115	9,430	42	2,570	14	720	23	1,210	116	8,395	43	2,253	75	2,555	15	486
Milwaukee.....	96	10,453	60	4,147	33	1,954	9	690	97	8,262	62	3,930	95	3,546	43	1,446
Erie.....	338	41,347	205	15,988	170	10,086	19	1,411	330	31,023	204	13,248	394	14,670	291	9,968
Buffalo.....	126	14,203	69	5,581	58	3,539	5	461	120	11,060	66	3,952	129	4,690	114	3,663
Cleveland.....	119	17,138	81	6,296	73	4,242			119	11,889	83	5,661	164	6,499	101	3,674
Erie.....	24	3,218	18	1,468	17	1,052	4	300	24	2,415	17	1,195	35	1,215	34	1,039
Sandusky.....	38	3,659	21	1,465	13	736	7	495	36	3,086	22	1,440	40	1,392	19	672
Suspension Bridge.....	6	738	4	300	3	180	2	80	6	528	4	265	8	240	8	240
Toledo.....	25	2,371	12	878	6	357	1	75	25	2,045	12	736	18	634	15	499
Ontario.....	46	3,471	8	390	1	35	8	406	46	3,182	11	526	18	775	6	185
Cape Vincent.....	19	1,505	5	210	1	35	4	165	20	1,436	4	190	6	220	2	69
Oswego.....	14	976					1	45	13	886	3	136	2	125	1	30
Rochester.....	13	990	3	180			3	196	13	860	4	200	10	430	3	95
St. Lawrence river.....	22	2,030	10	690	6	360	2	90	21	1,600	9	565	15	524	10	310
Alexandria Bay.....	3	240					1	60	3	240			1	35		
Clayton.....	1	60							1	60						
Ogdensburg.....	18	1,730	10	690	6	360	1	30	17	1,300	9	565	14	489	10	310

(a) 1,072 steamers; 758 sailing vessels; 11 unriggered. See supplementary table, page 110.

TRANSPORTATION ON THE GREAT LAKES.

349

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.—EMPLOYÉES AND WAGES BY PORTS, ETC.—Continued

STEAMERS—Continued.

PORTS.	WATCHMEN.		COOKS.		ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total.....	503	\$16,583	720	\$37,106	306	\$6,419	52	\$1,870	2,278	\$53,992	1,463	\$53,411	75	\$4,457	215	\$4,395
Superior.....	25	783	55	2,552	17	385			133	3,600	102	3,762	2	100	7	120
Duluth.....			11	340					19	835	8	295				
Marquette.....	25	783	44	2,212	17	385			114	2,765	94	3,407	2	100	7	120
Huron.....	160	5,277	204	9,902	82	1,482	15	450	569	13,263	381	13,392	17	1,037	83	1,794
Detroit.....	90	3,085	107	5,215	46	861	15	450	349	8,573	206	7,606	14	842	75	1,634
Port Huron.....	70	2,192	97	4,687	36	621			220	4,690	175	5,786	3	195	8	160
Michigan.....	113	3,797	217	12,429	63	1,351	19	640	574	16,897	352	13,529	16	975	44	813
Chicago.....	39	1,280	82	5,841	24	615	10	315	216	6,906	133	5,608	8	530	26	514
Grand Haven.....	25	751	55	2,621	15	300	2	30	130	3,452	119	4,064	6	310	15	245
Milwaukee.....	49	1,706	80	3,967	24	436	7	295	228	6,539	100	3,857	2	135	3	54
Erie.....	191	6,343	217	11,228	136	3,019	13	635	904	17,806	588	21,479	37	2,205	74	1,564
Buffalo.....	68	2,082	56	3,057	33	808			325	5,584	247	8,724	26	1,660	54	1,175
Cleveland.....	65	2,475	90	4,846	67	1,321	6	360	301	6,736	197	7,765				
Erie.....	33	990	17	1,663	17	585	4	200	117	1,870	71	2,505	5	350	13	260
Sandusky.....	14	474	33	1,352	11	165			96	2,256	37	1,331			1	15
Suspension Bridge.....			4	240	3	60			12	340	10	323				
Toledo.....	11	322	17	670	5	80	3	75	53	1,020	26	831	6	195	6	114
Ontario.....	7	178	14	467	2	42			62	1,740	22	693	3	140	7	104
Cape Vincent.....	5	108	8	312	2	42			30	790	14	393	3	140	6	84
Oswego.....	1	40	4	110					12	370	4	130				
Rochester.....	1	30	2	45					20	580	4	170			1	20
St. Lawrence river.....	7	205	13	528	6	140	5	145	36	680	18	610				
Alexandria Bay.....	1	25							3	90	1	40				
Clayton.....									1	15						
Ogdensburg.....	6	180	13	528	6	140	5	145	32	581	17	576				

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.—EMPLOYÉS AND WAGES BY PORTS, ETC.—Continued.

STEAMERS—Continued.

PORTS.	BOYS.		CHAMBERMAIDS.		PORTERS.		MUSICIANS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total	30	\$549	49	\$1,097	89	\$2,245	8	\$520	11,159	19,444	\$554,907	\$49.73
Superior			1	18	6	150			691	1,078	36,479	52.79
Duluth									85	98	5,040	59.29
Marquette			1	18	6	150			606	980	31,439	51.86
Huron	7	129	20	420	17	417			3,012	4,650	144,608	48.01
Detroit	5	99	19	400	16	397			1,682	2,617	79,576	47.31
Port Huron	2	30	1	20	1	20			1,330	2,033	65,032	48.90
Michigan	14	215	15	361	5	121			2,813	5,612	148,397	52.75
Chicago	1	15	8	188	1	20			991	2,101	57,054	57.57
Grand Haven	11	170	2	50	4	101			827	1,603	39,713	48.02
Milwaukee	2	30	5	123					995	1,908	51,630	51.89
Erie	8	195	10	240	61	1,557	8	520	4,198	7,372	204,532	48.72
Buffalo	7	175	5	120	36	917			1,544	1,828	71,451	46.28
Cleveland									1,466	3,728	79,102	53.96
Erie			4	100	20	500			474	524	20,320	42.86
Sandusky	1	20			2	65			391	699	18,623	47.63
Suspension Bridge									70	137	3,514	50.20
Toledo			1	20	3	75	8	520	253	456	11,516	45.52
Ontario	1	10	3	58					265	321	12,402	46.80
Cape Vincent			2	38					131	163	5,728	43.73
Oswego									55	72	2,848	51.78
Rochester	1	10	1	20					79	86	3,826	48.43
St. Lawrence river									180	411	8,489	47.16
Alexandria Bay									13	13	730	56.15
Clayton									3	3	135	45.00
Ogdensburg									164	395	7,624	46.49

TRANSPORTATION ON THE GREAT LAKES.

351

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.—EMPLOYÉS AND WAGES BY PORTS, ETC.—Continued.

SAILING VESSELS.

PORTS	CAPTAINS.		FIRST MATES.		SECOND MATES.		WATCHMEN.		COOKS.		SEAMEN.		BOYS.		Number of persons making ordinary crew.	Number of persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total.....	757	\$58,426	632	\$32,952	132	\$6,641	2	\$50	660	\$23,547	2,354	\$90,369	4	\$73	4,541	8,700	\$212,058	\$46.70
Superior:																		
Marquette.....	25	1,917	15	900	7	380			18	720	69	2,752			134	363	6,680	49.77
Huron.....	215	15,116	177	8,048	14	645			188	5,729	672	21,748			1,266	2,203	51,286	40.51
Detroit.....	70	5,187	56	2,832	7	313			62	1,894	232	8,185			427	629	18,411	43.12
Port Huron.....	145	9,929	121	5,216	7	332			126	3,835	440	13,563			839	1,574	32,875	39.18
Michigan.....	309	23,427	257	13,606	36	1,939	2	50	299	10,774	817	35,437			1,690	2,862	85,233	50.43
Chicago.....	99	8,828	90	5,223	22	1,208	1	30	95	4,296	365	16,955			672	1,269	36,540	54.38
Grand Haven.....	86	5,608	62	3,070	5	244	1	20	70	2,487	172	7,054			396	684	18,483	46.67
Milwaukee.....	124	8,991	105	5,313	9	487			104	3,901	280	11,428			622	909	30,210	48.57
Erie.....	165	15,235	154	8,877	70	3,395			154	5,471	671	25,825	4	73	1,218	2,912	58,876	48.34
Buffalo.....	28	2,458	28	1,439	4	203			27	961	118	4,592			205	398	9,653	47.09
Cleveland.....	76	7,629	73	4,494	51	2,384			73	2,732	320	12,609	4	73	597	1,584	29,921	50.12
Erie.....	1	100	1	60	1	51			1	30	4	120			8	8	361	45.13
Sandusky.....	31	2,600	24	1,417	12	664			25	819	109	4,454			201	571	9,954	49.52
Suspension Bridge.....	8	555	7	280					7	210	36	1,070			58	90	2,115	36.47
Toledo.....	21	1,893	21	1,187	2	93			21	719	84	2,980			149	261	6,872	46.12
Ontario.....	40	2,546	28	1,471	5	282			28	811	110	4,337			211	294	9,447	44.77
Cape Vincent.....	20	943	10	415					10	270	40	1,341			80	93	2,969	37.11
Oswego.....	12	993	11	662	4	237			11	343	43	1,836			81	133	4,071	50.26
Rochester.....	8	610	7	394	1	45			7	198	27	1,160			50	68	2,407	48.14
St. Lawrence river:																		
Ogdensburg.....	3	185	1	50					3	42	15	270			22	66	547	24.86

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 21.—EMPLOYÉS AND WAGES BY PORTS, ETC.—Continued.

UNRIGGED.

PORTS.	CAPTAINS.		FIRST MATES.		COOKS.		SEAMEN.		Number of persons making ordinary crew.	Number of persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total	11	\$695	5	\$230	7	\$141	38	\$1,016	61	151	\$2,082	\$34.13
Superior:												
Marquette	1	100	1	80	1	50	4	156	7	28	366	52.29
Erie:												
Buffalo	3	230	1	80			10	385	14	14	675	48.21
St. Lawrence river:												
Ogdensburg	7	365	3	110	6	91	24	475	40	109	1,041	26.03

SUPPLEMENTARY—ESTIMATED NUMBER OF EMPLOYÉS AND MONTHLY WAGES PAID ON 896 CRAFT NOT REPORTING THESE DETAILS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1,841 CRAFT.

CLASS OF VESSELS.	Number of vessels.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGINEERS.		SECOND ENGINEERS.		WHEELMEN.		LOOKOUTS.	
		No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	896	895	\$77,501	512	\$30,035	160	\$9,011	43	\$2,849	393	\$34,325	220	\$13,781	385	\$13,864	213	\$7,199
Steamers	395	394	43,005	213	15,242	125	7,250	43	2,849	393	34,325	220	13,781	385	13,864	213	7,199
Sailing vessels	204	204	15,731	109	8,813	35	1,761										
Unrigged	297	297	18,765	130	5,980												

CLASS OF VESSELS.	WATCHMEN.		COOKS.		ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARD.		WAITERS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	152	\$5,004	639	\$24,128	118	\$2,476	1,667	\$52,088	850	\$20,145	547	\$19,971	28	\$1,674	79	\$1,615
Steamers	151	4,979	271	13,967	118	2,476	19	683	850	20,145	547	19,971	28	1,674	79	1,615
Sailing vessels	1	25	177	6,315			630	24,186								
Unrigged			191	3,846			1,018	27,219								

CLASS OF VESSELS.	BOYS.		CHAMBERMAIDS.		PORTERS.		Number of persons making ordinary crew.	Number of persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total	12	\$219	19	\$421	33	\$832	6,965	13,586	\$317,138	\$45.53
Steamers	11	201	19	421	33	832	4,112	7,165	204,479	49.73
Sailing vessels	1	18					1,217	2,330	56,849	46.71
Unrigged							1,636	4,091	55,810	34.11

TRANSPORTATION ON THE GREAT LAKES.

353

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 22.—EMPLOYEES AND WAGES BY LAKE TOTALS—MONTHLY WAGES PAID TO ALL EMPLOYEES OF 1,841 REPORTING (a) CRAFT, WITH SEPARATE ENTRIES FOR STEAMERS, SAILING VESSELS, AND UNRIGGED, BUT GIVEN ONLY IN TOTALS FOR EACH LAKE AND ST. LAWRENCE RIVER.

ALL CRAFT.

LAKES AND RIVER.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGI-NEERS.		SECOND ENGI-NEERS.		WHEELMEN.		LOOKOUTS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	1,837	\$175,799	1,214	\$74,471	471	\$26,304	117	\$7,751	1,067	\$93,193	597	\$37,159	1,040	\$37,452	565	\$19,078
Superior	116	11,173	49	3,138	19	1,102	6	310	94	7,976	39	2,350	51	1,800	18	577
Huron	465	42,723	357	20,516	96	5,236	40	2,644	249	22,402	178	11,277	323	10,841	155	5,215
Michigan	632	56,494	398	23,181	104	5,808	42	2,890	327	27,010	156	9,193	239	8,842	85	2,823
Erie	566	56,812	360	24,925	240	13,481	19	1,411	330	31,023	204	13,248	394	14,670	291	9,968
Ontario	86	6,017	36	1,861	6	317	8	406	46	3,182	11	526	18	775	6	185
St. Lawrence river	32	2,580	14	850	6	360	2	90	21	1,600	9	565	15	524	10	310

LAKES AND RIVER.	WATCHMEN.		COOKS.		ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	505	\$16,633	1,387	\$60,794	306	\$6,419	2,444	\$93,255	2,278	\$53,992	1,463	\$53,411	75	\$4,457	215	\$4,396
Superior	25	783	74	3,322	17	385	73	2,908	133	3,600	102	3,702	2	100	7	120
Huron	160	5,277	392	15,631	82	1,482	687	22,198	569	13,263	381	13,392	17	1,037	83	1,794
Michigan	115	3,847	486	23,203	63	1,351	836	36,077	574	16,897	352	13,529	16	975	44	813
Erie	191	6,343	371	16,099	136	3,019	694	26,845	904	17,806	588	21,479	37	2,205	74	1,564
Ontario	7	178	42	1,278	2	42	110	4,337	62	1,740	22	693	3	140	7	104
St. Lawrence river	7	205	22	661	6	140	44	890	36	686	18	616				

LAKES AND RIVER.	BOYS.		CHAMBERMAIDS.		PORTERS.		MUSICIANS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total	34	\$622	49	\$1,097	89	\$2,245	8	\$520	15,761	28,295	\$769,047	\$48.79
Superior			1	18	6	150			832	1,469	43,514	52.30
Huron	7	129	20	420	17	417			4,278	6,853	195,894	45.79
Michigan	14	215	15	361	5	121			4,503	8,474	233,630	51.88
Erie	12	268	10	240	61	1,557	8	520	5,430	10,298	264,083	48.63
Ontario	1	10	3	58					476	615	21,849	45.90
St. Lawrence river									242	586	10,077	41.64

STEAMERS.

LAKES AND RIVER.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGI-NEERS.		SECOND ENGI-NEERS.		WHEELMEN.		LOOKOUTS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	1,069	\$116,678	577	\$41,289	339	\$19,663	117	\$7,751	1,067	\$93,193	597	\$37,159	1,040	\$37,452	565	\$19,078
Superior	90	9,156	33	2,178	12	722	6	310	94	7,976	39	2,350	51	1,800	18	577
Huron	250	27,607	180	12,468	82	4,591	40	2,644	249	22,402	178	11,277	323	10,841	155	5,215
Michigan	323	33,067	141	9,575	68	3,869	42	2,890	327	27,010	156	9,193	239	8,842	85	2,823
Erie	338	41,347	205	15,988	170	10,086	19	1,411	330	31,023	204	13,248	394	14,670	291	9,968
Ontario	46	3,471	8	390	1	35	8	406	46	3,182	11	526	18	775	6	185
St. Lawrence river	22	2,030	10	690	6	360	2	90	21	1,600	9	565	15	524	10	310

LAKES AND RIVER.	WATCHMEN.		COOKS.		ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	503	\$16,583	720	\$37,106	306	\$6,419	52	\$1,870	2,278	\$53,992	1,463	\$53,411	75	\$4,457	215	\$4,396
Superior	25	783	55	2,552	17	385			133	3,600	102	3,702	2	100	7	120
Huron	160	5,277	204	9,902	82	1,482	15	450	569	13,263	381	13,392	17	1,037	83	1,794
Michigan	113	3,797	217	12,429	63	1,351	19	640	574	16,897	352	13,529	16	975	44	813
Erie	191	6,343	217	11,228	136	3,019	13	635	904	17,806	588	21,479	37	2,205	74	1,564
Ontario	7	178	14	467	2	42			62	1,740	22	693	3	140	7	104
St. Lawrence river	7	205	13	528	6	140	5	145	36	686	18	616				

a 1,072 steamers; 758 sailing vessels; 11 unrigged. See supplementary table, page 110.

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 22.—EMPLOYÉS AND WAGES BY LAKE TOTALS, ETC.—Continued.

STEAMERS—Continued.

LAKES AND RIVER.	BOYS.		CHAMBERMAIDS.		PORTERS.		MUSICIANS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total	30	\$549	49	\$1,097	89	\$2,245	8	\$520	11,159	19,444	\$554,907	\$49.73
Superior			1	18	6	150			901	1,078	36,479	52.79
Huron	7	129	20	420	17	417			3,012	4,650	144,608	48.01
Michigan	14	215	15	361	5	121			2,813	5,612	148,397	52.75
Erie	8	195	10	240	61	1,557	8	520	4,198	7,372	204,532	48.72
Ontario	1	10	3	58					265	321	12,402	46.80
St. Lawrence river									180	411	8,489	47.16

SAILING VESSELS.

LAKES AND RIVER.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGINEERS.		SECOND ENGINEERS.		WHEELMEN.		LOOKOUTS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	757	\$58,426	632	\$32,952	132	\$6,641										
Superior	25	1,917	15	900	7	380										
Huron	215	15,116	177	8,048	14	645										
Michigan	309	23,427	257	13,606	36	1,939										
Erie	165	15,235	154	8,877	70	3,385										
Ontario	40	2,546	28	1,471	5	282										
St. Lawrence river	3	185	1	50												

LAKES AND RIVER.	WATCHMEN.		COOKS.		ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	2	\$50	660	\$23,547			2,354	\$90,369								
Superior			18	720			69	2,752								
Huron			188	5,729			672	21,748								
Michigan	2	50	209	10,774			817	35,437								
Erie			154	5,471			671	25,825								
Ontario			28	811			110	4,337								
St. Lawrence river			3	42			15	270								

LAKES AND RIVER.	BOYS.		CHAMBERMAIDS.		PORTERS.		MUSICIANS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total	4	\$73							4,541	8,700	\$212,058	\$46.70
Superior									134	363	6,669	49.77
Huron									1,266	2,203	51,286	40.51
Michigan									1,600	2,662	85,233	50.43
Erie	4	73							1,218	2,912	58,876	48.34
Ontario									211	294	9,447	44.77
St. Lawrence river									22	66	547	24.86

TRANSPORTATION ON THE GREAT LAKES.

355

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 22.—EMPLOYÉS AND WAGES BY LAKE TOTALS, ETC.—Continued.

UNRIGGED.

LAKES AND RIVER.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGI-NEERS.		SECOND ENGI-NEERS.		WHEELMEN.		LOOKOUTS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total	11	\$695	5	\$230												
Superior	1	100	1	60												
Erie	3	230	1	60												
St. Lawrence river	7	365	3	110												

LAKES AND RIVER.	WATCHMEN.		COOKS.		ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Total			7	\$141			38	\$1,016								
Superior			1	50			4	156								
Erie							10	385								
St. Lawrence river			6	91			24	475								

LAKES AND RIVER.	BOYS.		CHAMBERMAIDS.		PORTERS.		MUSICIANS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Total									61	151	\$2,082	\$34.13
Superior									7	28	366	52.29
Erie									14	14	675	48.21
St. Lawrence river									40	109	1,041	26.03

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 23.—FUEL ACCOUNT—AMOUNTS AND VALUE OF THE COAL AND WOOD USED AS FUEL ON 1,072 REPORTING STEAMERS, WITH SEPARATE ENTRIES UNDER THE HEADS OF CLASSIFIED OCCUPATIONS. (a)

LAKES AND RIVER.	Tons of coal.	Cords of wood.	Cost of fuel.	PASSENGER, PASSENGER AND FREIGHT. AND FREIGHT.			FERRY.			TOWBOATS.			MISCELLANEOUS.		
				Coal in tons.	Wood in cords.	Value.	Coal in tons.	Wood in cords.	Value.	Coal in tons.	Wood in cords.	Value.	Coal in tons.	Wood in cords.	Value.
Total.....	1,118,677	62,319	\$2,975,915	922,826	31,227	\$2,392,310	4,828	2,096	\$15,595	160,007	26,036	\$475,002	31,016	2,960	\$93,008
Lake Superior.....	67,994	1,100	200,405	48,001		138,851	1,127		3,546	17,068	1,100	54,020	1,800		3,968
Duluth.....	4,665	800	15,061	150		488				4,515	800	14,573			
Marquette.....	63,329	300	185,344	47,851		138,363	1,127		3,546	12,551	300	39,447	1,800		3,968
Lake Huron.....	324,209		745,130	252,666		590,833	439		1,325	54,509		107,731	16,595		45,241
Detroit.....	191,118		411,078	157,305		346,014				23,348		35,827	10,465		29,237
Port Huron.....	133,091		334,052	95,361		244,819	439		1,325	31,161		71,904	6,130		16,004
Lake Michigan.....	205,591	60,843	625,071	150,347	30,851	399,437	1,920	2,096	6,790	44,678	24,936	189,726	8,646	2,960	29,118
Chicago.....	68,898	8,678	227,702	35,025	7,067	110,012	640		228	27,336	1,611	98,812	5,897		18,650
Grand Haven.....	58,877	29,048	148,405	47,212	16,761	95,742	1,000	2,096	5,722	10,563	7,231	44,176	102	2,960	2,765
Milwaukee.....	77,816	23,117	248,964	68,110	7,023	193,683	280		840	6,779	16,094	46,738	2,647		7,708
Lake Erie.....	497,268		1,333,833	455,216		1,213,339	1,039		2,692	37,713		105,571	3,300		12,221
Buffalo.....	185,154		528,315	167,061		476,043	889		2,392	16,404		46,824	800		3,656
Cleveland.....	203,301		498,948	186,474		451,314				15,577		42,459	1,250		5,173
Erie.....	44,138		145,258	43,838		144,258							300		1,009
Sandusky.....	37,217		90,652	35,237		85,974	150		300	1,780		4,178	50		200
Suspension Bridge.....	8,300		23,612	7,551		20,732				749		2,880			
Toledo.....	19,158		47,048	15,055		35,018				3,203		9,230	900		2,800
Lake Ontario.....	6,281		24,818	4,117		17,051				1,769		6,197	395		1,570
Cape Vincent.....	2,795		11,724	2,395		10,124				150		500	250		1,100
Oswego.....	1,644		6,083	240		1,016				1,259		4,597	145		470
Rochester.....	1,842		7,011	1,482		5,911				360		1,100			
St. Lawrence river.....	17,334	376	46,658	12,479	376	32,799	303		1,242	4,272		11,757	280		860
Alexandria Bay.....	718		2,242	638		1,982							80		260
Clayton.....	14		75	14		75									
Ogdensburg.....	16,002	376	44,341	11,827	376	30,742	303		1,242	4,272		11,757	200		600

a Not including estimated amount and value of the coal and wood used as fuel on 395 steamers not reporting these items. See supplementary table below.

SUPPLEMENTARY—ESTIMATED AMOUNT AND VALUE OF THE COAL AND WOOD USED AS FUEL ON 395 STEAMERS NOT REPORTING THESE ITEMS, THE ESTIMATE BEING BASED ON THE FIGURES ACTUALLY REPORTED FOR 1,072 STEAMERS.

GREAT LAKES AND ST. LAWRENCE RIVER.	Number of vessels.	Tons of coal.	Cords of wood.	Cost of fuel.
Total	395	412,320	22,960	\$1,096,536

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

1880								
CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	2,487	552,341.59	912	209,465.06	1,415	302,264.70	160	40,611.83
Oswegatchie, New York.....	24	2,366.34	12	765.10	5	357.60	7	1,243.64
Cape Vincent, New York.....	54	5,280.77	19	647.24	35	4,633.53		
Oswego, New York.....	88	17,004.80	22	956.57	66	16,108.23		
Genesee, New York.....	22	3,116.82	12	1,977.15	10	1,139.67		
Niagara, New York.....	12	3,458.04	4	1,785.71	8	1,672.33		
Buffalo Creek, New York.....	219	101,256.76	115	57,958.44	77	36,876.68	27	6,421.64
Dunkirk, New York.....	4	643.92	2	36.81	2	607.11		
Erie, Pennsylvania.....	35	23,464.14	23	18,353.07	12	5,111.07		
Cuyahoga, Ohio.....	175	64,286.58	55	21,313.27	119	42,421.97	1	551.34
Sandusky, Ohio.....	83	14,164.74	28	4,743.25	53	9,008.15	2	413.34
Miami, Ohio.....	53	10,505.78	23	3,416.75	24	4,845.20	6	2,243.83
Detroit, Michigan.....	313	70,814.88	113	34,738.37	166	29,912.52	34	6,163.96
Huron, Michigan.....	303	51,613.36	104	18,362.99	130	12,875.37	69	20,375.00
Superior, Michigan.....	67	5,462.03	47	2,180.30	20	3,281.73		
Michigan, Michigan.....	296	34,305.51	129	15,144.51	154	16,035.53	13	3,125.47
Chicago, Illinois.....	384	76,478.02	109	9,949.75	275	66,528.27		
Milwaukee, Wisconsin.....	348	67,854.92	89	16,981.23	258	50,800.11	1	73.58
Duluth, Minnesota.....	7	204.18	6	154.55	1	49.63		
1881								
Total.....	2,494	601,291.10	970	257,250.65	1,368	303,271.86	156	40,768.59
Oswegatchie, New York.....	27	2,799.91	12	823.73	7	620.27	8	1,355.91
Cape Vincent, New York.....	39	5,035.42	13	706.90	26	4,328.52		
Oswego, New York.....	76	14,266.37	25	1,035.66	51	13,230.71		
Genesee, New York.....	22	3,692.43	14	2,299.68	8	1,392.75		
Niagara, New York.....	11	3,323.63	4	1,510.96	7	1,812.97		
Buffalo Creek, New York.....	215	100,756.95	125	63,410.02	65	30,909.86	25	6,437.07
Dunkirk, New York.....	2	47.13	1	22.97	1	24.16		
Erie, Pennsylvania.....	39	28,326.50	27	23,624.27	12	4,702.23		
Cuyahoga, Ohio.....	181	75,548.27	65	33,019.16	112	40,961.71	4	1,567.40
Sandusky, Ohio.....	80	15,546.45	28	5,883.70	50	9,301.15	2	361.60
Miami, Ohio.....	49	15,337.65	26	7,329.58	18	6,104.61	5	1,903.46
Detroit, Michigan.....	303	77,699.11	121	39,608.63	159	33,574.14	23	4,516.34
Huron, Michigan.....	337	63,031.34	118	24,396.16	144	17,207.42	75	21,427.76
Superior, Michigan.....	79	9,136.86	50	3,632.01	29	6,504.85		
Michigan, Michigan.....	305	34,978.84	138	15,429.97	154	16,423.40	13	3,125.47
Chicago, Illinois.....	367	75,595.47	107	11,916.42	260	63,679.05		
Milwaukee, Wisconsin.....	353	75,919.65	89	22,430.43	263	53,415.64	1	73.58
Duluth, Minnesota.....	9	249.12	7	170.40	2	78.72		
1882								
Total.....	2,610	642,127.88	1,082	288,967.60	1,371	311,111.26	157	42,049.02
Oswegatchie, New York.....	31	3,057.16	15	878.64	7	702.61	9	1,475.91
Cape Vincent, New York.....	55	4,378.51	20	746.95	34	3,596.16	1	35.40
Oswego, New York.....	70	13,213.09	24	1,030.09	46	12,183.00		
Genesee, New York.....	23	3,822.99	16	2,485.00	7	1,337.99		
Niagara, New York.....	16	4,130.77	8	2,306.00	8	1,824.77		
Buffalo Creek, New York.....	219	109,574.60	128	70,996.15	61	30,092.54	30	8,485.91
Dunkirk, New York.....	2	47.13	1	22.97	1	24.16		
Erie, Pennsylvania.....	43	29,609.38	31	24,793.73	12	4,815.65		
Cuyahoga, Ohio.....	187	81,328.89	70	36,621.45	112	42,841.38	5	1,886.06
Sandusky, Ohio.....	87	16,581.25	29	7,201.87	56	9,017.78	2	361.60
Miami, Ohio.....	47	15,012.59	28	7,503.25	15	5,829.94	4	1,679.40
Detroit, Michigan.....	312	82,932.88	136	43,600.49	155	34,949.65	21	4,383.72
Huron, Michigan.....	343	69,113.96	118	24,466.24	154	24,085.75	71	20,561.97
Superior, Michigan.....	89	12,799.40	58	6,975.83	31	5,823.57		
Michigan, Michigan.....	345	37,610.93	174	17,479.33	158	17,006.13	13	3,125.47
Chicago, Illinois.....	368	73,179.21	117	12,534.43	251	60,644.78		
Milwaukee, Wisconsin.....	362	85,447.11	100	29,116.85	261	56,256.68	1	73.58
Duluth, Minnesota.....	11	287.05	9	208.33	2	78.72		

TRANSPORTATION ON THE GREAT LAKES.

359

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889, ETC.—Continued.

1883

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	2,612	651,792.75	1,130	301,256.87	1,332	307,734.46	150	42,801.42
Oswegatchie, New York.....	23	2,492.99	13	814.02	3	346.06	7	1,332.91
Cape Vincent, New York.....	49	3,465.25	16	566.36	32	2,863.49	1	35.40
Oswego, New York.....	69	13,312.97	24	1,123.96	45	12,189.01		
Genesee, New York.....	24	3,809.71	17	2,500.60	7	1,309.11		
Niagara, New York.....	17	3,676.71	8	1,511.22	9	2,165.49		
Buffalo Creek, New York.....	215	116,483.40	127	77,832.61	59	30,069.50	29	8,581.29
Dunkirk, New York.....	1	24.16			1	24.16		
Erie, Pennsylvania.....	37	28,513.65	27	24,737.58	10	3,776.07		
Cuyahoga, Ohio.....	183	78,251.25	74	36,197.64	105	41,033.77	4	1,019.84
Sandusky, Ohio.....	83	18,187.99	33	7,305.69	48	10,520.70	2	361.60
Miami, Ohio.....	48	15,947.55	27	7,997.65	17	6,270.50	4	1,679.40
Detroit, Michigan.....	309	98,702.02	145	49,427.40	153	36,275.85	11	2,998.77
Huron, Michigan.....	366	72,304.18	134	25,802.57	154	22,908.45	78	23,593.16
Superior, Michigan.....	99	16,100.82	58	7,024.66	32	9,076.16		
Michigan, Michigan.....	351	36,768.82	180	17,289.62	158	16,348.73	13	3,125.47
Chicago, Illinois.....	372	70,979.22	130	13,433.40	242	57,545.82		
Milwaukee, Wisconsin.....	365	82,402.25	107	27,317.08	257	55,011.59	1	73.58
Duluth, Minnesota.....	10	374.81	10	374.81				

1884

Total.....	2,558	657,507.36	1,144	318,962.32	1,294	305,219.52	120	33,325.52
Oswegatchie, New York.....	29	2,688.85	13	909.82	7	394.05	9	1,384.98
Cape Vincent, New York.....	50	3,292.91	19	690.92	30	2,566.59	1	35.40
Oswego, New York.....	66	12,754.83	21	1,092.04	45	11,662.19		
Genesee, New York.....	21	2,533.31	15	1,241.61	6	1,291.70		
Niagara, New York.....	16	3,756.96	7	1,591.47	8	1,909.23	1	256.26
Buffalo Creek, New York.....	200	108,199.29	134	79,918.59	40	20,659.90	26	7,620.80
Dunkirk, New York.....	1	24.16			1	24.16		
Erie, Pennsylvania.....	36	28,373.37	27	24,737.58	9	3,035.79		
Cuyahoga, Ohio.....	184	87,010.15	78	43,086.39	104	43,344.18	2	579.58
Sandusky, Ohio.....	83	22,066.58	34	7,280.01	47	14,444.97	4	361.60
Miami, Ohio.....	52	17,426.56	28	8,150.85	20	7,596.31	4	1,679.40
Detroit, Michigan.....	309	93,546.94	144	54,291.00	154	36,257.17	11	2,998.77
Huron, Michigan.....	366	79,210.45	143	30,220.62	163	31,361.72	60	17,628.11
Superior, Michigan.....	93	16,490.50	61	7,843.65	32	8,646.85		
Michigan, Michigan.....	320	34,039.09	173	18,673.19	143	14,585.28	4	780.62
Chicago, Illinois.....	366	68,821.93	129	13,970.79	237	54,851.15		
Milwaukee, Wisconsin.....	347	76,403.31	100	24,503.06	247	51,900.25		
Duluth, Minnesota.....	19	848.17	18	760.14	1	88.03		

1885

Total.....	2,540	672,631.47	1,154	332,365.33	1,282	310,383.47	104	29,662.67
Oswegatchie, New York.....	31	3,497.74	15	933.60	4	538.52	12	2,025.62
Cape Vincent, New York.....	52	4,075.85	21	1,443.57	31	2,632.28		
Oswego, New York.....	59	12,952.17	20	2,286.33	38	10,464.79	1	201.05
Genesee, New York.....	18	2,311.54	12	1,019.84	6	1,291.70		
Niagara, New York.....	18	4,440.30	7	1,591.47	11	2,848.83		
Buffalo Creek, New York.....	199	110,761.44	132	82,100.94	39	19,809.92	28	8,850.58
Dunkirk, New York.....	1	24.16			1	24.16		
Erie, Pennsylvania.....	39	28,491.04	29	24,714.97	10	3,776.07		
Cuyahoga, Ohio.....	183	92,640.52	81	48,900.43	101	43,537.04	1	203.05
Sandusky, Ohio.....	77	21,842.07	31	7,310.29	45	14,242.38	1	289.40
Miami, Ohio.....	54	17,405.17	30	7,684.54	20	8,041.23	4	1,679.40
Detroit, Michigan.....	302	93,718.70	138	52,744.83	154	38,198.34	10	2,775.53
Huron, Michigan.....	362	83,742.69	141	32,831.20	179	37,943.77	42	12,967.72
Superior, Michigan.....	91	16,246.60	63	8,033.86	28	8,212.74		
Michigan, Michigan.....	316	32,683.25	169	17,249.26	143	14,653.37	4	780.62
Chicago, Illinois.....	361	67,486.98	135	15,040.76	226	52,446.22		
Milwaukee, Wisconsin.....	355	79,358.84	110	27,724.76	245	51,634.08		
Duluth, Minnesota.....	22	952.41	20	754.68	1	88.03	1	109.70

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889, ETC.—Continued.

1886

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	2,547	683,154.43	1,258	378,376.16	1,195	279,573.84	94	25,204.43
Oswegatchie, New York.....	41	5,150.92	17	1,058.73	9	939.77	15	3,152.42
Cape Vincent, New York.....	51	4,040.56	20	1,410.71	31	2,629.85		
Oswego, New York.....	54	11,421.61	19	1,897.57	34	9,322.99	1	201.05
Genesee, New York.....	17	2,022.82	12	1,034.63	5	988.10		
Niagara, New York.....	18	4,505.58	7	1,469.99	11	3,035.59		
Buffalo Creek, New York.....	193	103,745.43	132	78,954.00	36	18,312.87	25	6,478.56
Dunkirk, New York.....	1	24.16			1	24.16		
Erie, Pennsylvania.....	37	28,141.97	29	24,720.63	8	3,431.34		
Cuyahoga, Ohio.....	184	101,492.56	85	54,792.13	108	46,327.55	1	372.86
Sandusky, Ohio.....	82	24,019.61	36	9,319.60	45	14,410.11	1	289.90
Miami, Ohio.....	57	17,862.90	30	6,710.48	23	9,473.02	4	1,679.40
Detroit, Michigan.....	305	100,146.34	140	55,879.98	154	41,407.48	11	2,858.88
Huron, Michigan.....	357	86,292.25	138	34,273.37	188	42,737.86	31	9,281.02
Superior, Michigan.....	102	15,807.16	76	9,537.84	26	6,269.32		
Michigan, Michigan.....	312	31,875.68	171	17,157.75	137	13,937.31	4	780.62
Chicago, Illinois.....	352	66,730.22	216	51,010.77	136	15,719.45		
Milwaukee, Wisconsin.....	352	79,052.32	110	28,523.37	242	50,528.95		
Duluth, Minnesota.....	22	822.34	20	624.61	1	88.03	1	109.70

1887

Total.....	2,541	721,307.70	1,207	387,209.01	1,252	312,667.22	82	21,431.47
Oswegatchie, New York.....	44	10,069.70	20	6,235.71	8	659.22	16	3,174.77
Cape Vincent, New York.....	52	4,081.67	20	1,414.26	32	2,667.41		
Oswego, New York.....	44	9,625.82	18	1,839.07	26	7,786.75		
Genesee, New York.....	21	2,469.32	16	1,481.13	5	988.19		
Niagara, New York.....	14	3,978.16	5	1,694.14	9	2,284.02		
Buffalo Creek, New York.....	192	93,112.41	130	72,919.14	28	13,845.44	25	6,347.83
Dunkirk, New York.....	2	47.06	1	23.50	1	24.16		
Erie, Pennsylvania.....	35	30,482.92	29	27,678.98	6	2,803.94		
Cuyahoga, Ohio.....	205	123,888.58	93	70,720.70	111	52,795.00	1	372.86
Sandusky, Ohio.....	76	24,023.70	37	10,415.42	38	13,318.88	1	289.40
Miami, Ohio.....	63	17,900.27	32	7,877.68	27	8,343.19	4	1,679.40
Detroit, Michigan.....	285	103,032.26	137	58,893.89	140	42,012.43	8	2,125.94
Huron, Michigan.....	377	102,072.44	145	44,594.32	209	50,718.56	23	6,759.56
Superior, Michigan.....	105	17,091.61	78	10,287.61	27	6,804.00		
Michigan, Michigan.....	300	29,761.36	168	16,628.74	129	12,560.63	3	571.99
Chicago, Illinois.....	356	72,420.05	137	22,605.98	219	49,814.07		
Milwaukee, Wisconsin.....	350	76,515.28	114	31,361.98	236	45,153.30		
Duluth, Minnesota.....	20	734.49	18	536.76	1	88.03	1	109.70

1888

Total.....	2,641	806,189.10	1,323	476,035.74	1,242	312,285.94	76	17,867.42
Oswegatchie, New York.....	47	11,225.71	21	6,683.49	9	1,328.08	17	3,214.14
Cape Vincent, New York.....	58	4,581.85	24	1,567.30	34	3,014.55		
Oswego, New York.....	41	7,481.47	19	1,842.40	22	5,639.07		
Genesee, New York.....	20	2,717.03	15	1,571.73	4	755.49	1	389.81
Niagara, New York.....	18	4,554.60	9	2,270.58	9	2,284.02		
Buffalo Creek, New York.....	211	114,405.77	164	95,968.36	25	13,248.27	22	5,189.14
Dunkirk, New York.....	1	24.16			1	24.16		
Erie, Pennsylvania.....	34	27,749.22	30	25,989.47	4	1,759.75		
Cuyahoga, Ohio.....	221	147,589.39	117	95,527.66	103	51,688.85	1	372.86
Sandusky, Ohio.....	79	27,443.61	44	14,933.09	34	12,221.12	1	289.40
Miami, Ohio.....	64	18,755.39	34	7,959.87	28	10,482.97	2	312.55
Detroit, Michigan.....	292	113,920.50	146	70,963.84	140	42,285.88	6	670.78
Huron, Michigan.....	393	113,413.54	153	49,377.62	219	57,717.19	21	6,318.73
Superior, Michigan.....	120	21,668.43	84	12,951.08	36	8,717.35		
Michigan, Michigan.....	295	27,747.62	169	15,756.66	123	11,418.97	3	571.99
Chicago, Illinois.....	345	74,226.75	144	28,453.90	201	45,772.85		
Milwaukee, Wisconsin.....	374	86,851.99	125	43,012.65	249	43,839.34		
Duluth, Minnesota.....	28	1,832.07	25	1,206.04	1	88.03	2	538.00

TRANSPORTATION ON THE GREAT LAKES.

361

COMPARATIVE STATISTICS—Continued.

TABLE 28.—FLEETS FOR THE 10 YEARS, 1880-1889, ETC.—Continued.

1889

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	2,737	900,846.75	1,436	571,204.78	1,251	322,694.29	50	6,947.68
Oswegatchie, New York	53	13,251.25	21	7,767.11	9	2,538.64	23	2,945.50
Cape Vincent, New York	59	4,451.67	24	1,683.96	34	2,694.35	1	73.36
Oswego, New York	36	8,420.30	19	3,582.18	17	4,838.12		
Genesee, New York	24	3,779.69	16	1,769.31	8	2,010.38		
Niagara, New York	17	5,724.32	8	3,440.30	9	2,284.02		
Buffalo Creek, New York	227	127,379.04	183	109,439.62	34	17,024.34	10	915.08
Dunkirk, New York	4	506.30	3	484.14	1	24.16		
Erie, Pennsylvania	38	29,374.58	34	28,063.24	4	1,311.34		
Cuyahoga, Ohio	241	176,804.22	132	119,293.27	106	56,785.99	3	724.96
Sandusky, Ohio	82	30,579.75	49	16,691.69	33	13,888.06		
Miami, Ohio	59	16,563.90	36	9,497.00	23	7,066.90		
Detroit, Michigan	281	127,430.66	149	87,003.48	125	39,338.72	7	1,068.46
Huron, Michigan	450	131,632.10	186	60,109.41	263	71,432.36	1	90.33
Superior, Michigan	122	80,345.42	90	22,850.82	32	7,494.60		
Michigan, Michigan	304	80,381.58	178	18,157.52	123	11,652.07	3	571.99
Chicago, Illinois	342	73,528.81	151	28,897.39	191	44,631.42		
Milwaukee, Wisconsin	369	88,753.12	131	51,162.33	238	37,590.79		
Duluth, Minnesota	29	1,938.04	26	1,312.01	1	88.03	2	538.00

RECAPITULATION.

YEARS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for 10 years	25,767	8,889,190.13	11,616	3,521,093.52	13,002	3,067,206.56	1,149	300,890.05
1880	2,487	552,341.59	912	209,465.06	1,415	302,264.70	160	40,611.83
1881	2,494	601,291.10	970	257,250.65	1,368	303,271.86	156	40,768.59
1882	2,610	642,127.88	1,082	288,967.60	1,371	311,111.26	157	42,049.02
1883	2,612	651,792.75	1,130	301,256.87	1,332	307,734.46	150	42,801.42
1884	2,558	657,507.36	1,144	318,962.32	1,204	305,219.52	120	33,325.52
1885	2,540	672,631.47	1,154	322,365.33	1,282	310,383.47	104	29,882.67
1886	2,547	683,154.43	1,258	378,376.16	1,195	279,573.84	94	25,204.43
1887	2,541	721,907.70	1,207	387,209.01	1,252	312,667.22	82	21,431.47
1888	2,641	806,189.10	1,323	476,035.74	1,242	312,285.94	76	17,867.42
1889	2,737	900,846.75	1,436	571,204.78	1,251	322,694.29	50	6,947.68

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—TONNAGES FOR THE 10 YEARS, 1880-1889—NUMBER, AGGREGATE, AND AVERAGE TONNAGE OF ALL CRAFT REGISTERED AT THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER.

STEAMERS.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.
Oswegatchie, New York.....	12	765	64	12	824	69	15	879	59	13	814	63	13	910	70
Cape Vincent, New York.....	19	647	34	13	707	54	20	747	37	16	566	35	19	691	36
Oswego, New York.....	22	957	44	25	1,036	41	24	1,030	43	24	1,124	47	21	1,093	51
Genesee, New York.....	12	1,877	165	14	2,300	164	16	2,485	155	17	2,501	147	15	1,242	83
Niagara, New York.....	4	1,786	447	4	1,511	378	8	2,306	288	8	1,511	189	7	1,591	237
Buffalo Creek, New York.....	115	57,958	504	125	63,410	507	128	70,996	555	127	77,833	613	134	79,919	596
Dunkirk, New York.....	2	37	19	1	23	23	1	23	23	27	24,738	916	27	24,738	916
Erie, Pennsylvania.....	23	18,353	798	27	23,624	875	31	24,794	800	27	24,738	916	27	24,738	916
Cuyahoga, Ohio.....	55	21,313	388	65	33,019	508	70	36,621	523	74	36,198	489	78	43,086	552
Sandusky, Ohio.....	28	4,743	169	28	5,884	210	29	7,202	248	33	7,306	221	34	7,280	214
Miami, Ohio.....	23	3,417	149	26	7,330	282	28	7,503	268	27	7,998	296	28	8,151	291
Detroit, Michigan.....	113	34,738	307	121	39,609	327	136	43,600	321	145	49,427	341	144	54,291	377
Huron, Michigan.....	104	18,363	177	118	24,396	207	118	24,466	207	134	25,803	193	143	30,221	211
Superior, Michigan.....	47	2,180	46	50	3,632	73	58	6,976	120	58	7,025	121	61	7,844	129
Michigan, Michigan.....	129	15,145	117	138	15,430	112	174	17,479	100	180	17,290	96	173	18,673	108
Chicago, Illinois.....	109	9,950	91	107	11,916	111	117	12,534	107	130	13,433	103	129	13,971	106
Milwaukee, Wisconsin.....	89	16,981	191	89	22,430	252	100	29,117	291	107	27,317	255	100	24,503	245
Duluth, Minnesota.....	6	155	26	7	170	24	9	208	23	10	375	38	18	760	42

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.
Oswegatchie, New York.....	15	934	62	17	1,050	62	20	6,236	312	21	6,683	318	21	7,767	370
Cape Vincent, New York.....	21	1,444	69	20	1,411	71	20	1,414	71	24	1,567	65	24	1,681	70
Oswego, New York.....	20	2,286	114	19	1,898	100	18	1,839	102	19	1,842	97	19	3,582	189
Genesee, New York.....	12	1,020	85	12	1,035	86	16	1,481	93	15	1,572	105	16	1,769	111
Niagara, New York.....	7	1,591	227	7	1,470	210	5	1,694	339	9	2,271	252	8	3,440	430
Buffalo Creek, New York.....	132	82,101	622	132	73,954	568	139	72,919	525	164	95,968	585	183	109,440	596
Dunkirk, New York.....	2	37	19	1	23	23	1	24	24	3	484	161	3	484	161
Erie, Pennsylvania.....	29	24,715	852	29	24,721	852	29	27,679	954	30	25,989	866	34	28,063	825
Cuyahoga, Ohio.....	81	48,900	604	85	54,792	645	93	70,721	760	117	95,528	816	132	119,293	904
Sandusky, Ohio.....	31	7,310	236	36	9,320	259	37	10,415	281	44	14,933	339	49	16,692	341
Miami, Ohio.....	30	7,685	256	30	6,710	224	32	7,878	246	34	7,960	234	36	9,497	264
Detroit, Michigan.....	138	52,745	382	140	55,890	399	137	58,894	430	146	70,964	486	149	87,003	584
Huron, Michigan.....	141	32,831	233	138	34,273	248	145	44,594	308	153	49,378	323	186	60,109	323
Superior, Michigan.....	63	8,034	128	76	9,538	126	78	10,288	132	84	12,951	154	90	22,851	254
Michigan, Michigan.....	169	17,249	102	171	17,158	100	168	16,629	99	169	15,757	93	178	18,158	102
Chicago, Illinois.....	135	15,041	111	216	51,011	236	137	22,606	165	144	28,454	198	151	28,897	191
Milwaukee, Wisconsin.....	110	27,725	252	110	28,622	259	114	31,362	275	125	43,013	344	131	51,162	391
Duluth, Minnesota.....	20	755	38	20	625	31	18	537	30	25	1,206	48	26	1,312	50

SAILING VESSELS.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.
Oswegatchie, New York.....	5	358	72	7	620	89	7	703	100	3	346	115	7	394	56
Cape Vincent, New York.....	35	4,634	132	26	4,329	167	34	3,596	100	32	2,863	89	30	2,567	86
Oswego, New York.....	66	16,108	244	51	13,231	259	46	12,183	265	45	12,189	271	45	11,662	259
Genesee, New York.....	10	1,140	114	8	1,393	174	7	1,338	191	7	1,309	187	6	1,292	215
Niagara, New York.....	8	1,672	209	7	1,813	259	8	1,825	228	9	2,165	241	8	1,909	239
Buffalo Creek, New York.....	77	36,877	479	65	30,910	476	61	30,093	493	50	30,070	510	40	20,660	517
Dunkirk, New York.....	2	607	304	1	24	24	1	24	24	1	24	24	1	24	24
Erie, Pennsylvania.....	17	5,111	426	12	4,702	392	12	4,816	401	10	3,770	378	9	3,636	404
Cuyahoga, Ohio.....	119	42,422	356	112	40,962	366	112	42,841	383	105	41,034	391	104	43,344	417
Sandusky, Ohio.....	53	9,008	170	50	9,301	186	56	9,018	161	48	10,521	219	47	14,445	307
Miami, Ohio.....	24	4,845	202	18	6,105	339	15	5,830	389	17	6,271	369	20	7,596	380
Detroit, Michigan.....	166	29,913	180	159	33,574	211	155	34,950	225	153	36,276	237	154	36,257	235
Huron, Michigan.....	130	12,875	99	144	17,207	119	154	24,086	156	154	22,908	149	183	31,362	182
Superior, Michigan.....	20	3,282	164	29	5,505	190	31	5,824	188	32	9,076	284	32	8,647	270
Michigan, Michigan.....	154	16,030	104	154	16,423	107	158	17,006	108	158	16,349	103	143	14,585	102
Chicago, Illinois.....	275	66,528	242	260	63,679	245	251	60,645	242	242	57,546	238	237	54,851	231
Milwaukee, Wisconsin.....	258	50,800	197	263	53,416	203	261	56,257	216	257	55,012	214	247	51,900	210
Duluth, Minnesota.....	1	50	50	2	79	40	2	79	40	1	50	50	1	50	50

COMPARATIVE STATISTICS—Continued.

TABLE 29.—TONNAGES FOR THE 10 YEARS, 1880-1889—Continued.

SAILING VESSELS—Continued.

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Oswegatchie, New York	4	539	135	9	940	104	8	650	82	9	1,328	148	9	2,539	282
Cape Vincent, New York	31	2,632	85	31	2,630	85	32	2,667	83	34	3,015	89	34	2,604	79
Oswego, New York	38	10,465	275	34	9,323	274	26	7,747	300	22	5,639	256	17	4,838	285
Genesee, New York	6	1,292	215	5	998	198	5	1,088	198	4	755	180	8	2,010	251
Niagara, New York	11	2,849	259	11	3,036	276	9	2,284	254	9	2,284	254	9	2,284	254
Buffalo Creek, New York	30	19,810	508	36	18,313	509	28	13,845	494	25	13,248	530	34	17,024	501
Dunkirk, New York	1	24	24	1	24	24	1	24	24	1	24	24	1	24	24
Erie, Pennsylvania	10	3,770	378	8	3,421	428	6	2,804	467	4	1,760	440	4	1,311	328
Cuyahoga, Ohio	101	43,537	431	108	40,328	429	111	52,795	476	103	51,689	502	106	56,786	536
Sandusky, Ohio	45	14,242	316	45	14,410	320	38	13,319	351	34	12,221	359	33	13,788	421
Miami, Ohio	20	8,041	402	23	9,473	412	27	8,343	309	28	10,483	374	23	7,067	307
Detroit, Michigan	154	38,198	248	154	41,407	269	140	42,012	300	140	42,286	302	125	39,339	315
Huron, Michigan	179	37,944	212	188	42,738	227	209	50,719	243	219	57,717	264	263	71,432	272
Superior, Michigan	28	8,213	293	26	6,280	241	27	6,804	252	36	8,717	242	32	7,495	234
Michigan, Michigan	143	14,653	102	137	13,937	102	129	12,561	97	123	11,419	93	123	11,652	95
Chicago, Illinois	226	52,446	232	136	15,719	116	219	49,814	227	201	45,773	228	191	44,631	234
Milwaukee, Wisconsin	245	51,634	211	242	50,529	209	236	45,153	191	249	43,839	176	238	37,591	158
Duluth, Minnesota	1	88	88	1	88	88	1	88	88	1	88	88	1	88	88

BARGES.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Oswegatchie, New York	7	1,244	178	8	1,356	170	9	1,476	164	7	1,333	190	9	1,385	154
Cape Vincent, New York							1	35	35	1	35	35	1	35	35
Oswego, New York															
Genesee, New York													1	256	256
Niagara, New York															
Buffalo Creek, New York	27	6,422	238	25	6,437	257	30	8,480	283	29	8,581	296	26	7,621	293
Dunkirk, New York															
Erie, Pennsylvania				4	1,567	392	5	1,866	373	4	1,020	255	2	580	290
Cuyahoga, Ohio	1	551	551	2	362	181	2	362	181	2	362	181	2	362	181
Sandusky, Ohio	2	413	207												
Miami, Ohio	6	2,244	374	5	1,903	381	4	1,679	420	4	1,679	420	4	1,679	420
Detroit, Michigan	34	6,164	181	23	4,516	196	21	4,384	209	11	2,999	273	11	2,999	273
Huron, Michigan	69	20,375	295	75	21,428	286	71	20,562	290	78	23,593	302	60	17,628	294
Superior, Michigan															
Michigan, Michigan	13	3,125	240	13	3,125	240	13	3,125	240	13	3,125	240	4	781	195
Chicago, Illinois															
Milwaukee, Wisconsin	1	74	74	1	74	74	1	74	74	1	74	74			
Duluth, Minnesota															

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Oswegatchie, New York	12	2,026	169	15	3,152	210	16	3,175	198	17	3,214	189	23	2,946	128
Cape Vincent, New York				1	201	201							1	73	73
Oswego, New York	1	201	201												
Genesee, New York										1	390	390			
Niagara, New York															
Buffalo Creek, New York	28	8,851	316	25	6,479	259	25	6,348	254	22	5,189	236	10	915	92
Dunkirk, New York															
Erie, Pennsylvania				1	373	373	1	373	373	1	373	373			
Cuyahoga, Ohio	1	203	203	1	290	290	1	289	289	1	289	289	3	725	242
Sandusky, Ohio	1	289	289												
Miami, Ohio	4	1,679	420	4	1,679	420	4	1,679	420	2	313	157			
Detroit, Michigan	10	2,776	278	11	2,859	260	8	2,126	266	6	671	112	7	1,088	155
Huron, Michigan	42	12,968	309	31	9,281	299	23	6,760	294	21	6,310	301	1	90	90
Superior, Michigan															
Michigan, Michigan	4	781	195	4	781	195	3	572	191	3	572	191	3	572	191
Chicago, Illinois															
Milwaukee, Wisconsin															
Duluth, Minnesota	1	110	110	1	110	110	1	110	110	2	538	269	2	538	269

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 29.—TONNAGES FOR THE 10 YEARS, 1880-1889—Continued.

ALL CRAFT.

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Oswegatchie, New York	24	2,367	99	27	2,800	104	31	3,058	99	23	2,493	108	29	2,689	93
Cape Vincent, New York	54	5,281	98	39	5,036	129	55	4,378	80	49	3,464	71	50	3,293	66
Oswego, New York	88	17,065	194	76	14,267	188	70	13,213	189	69	13,313	193	66	12,755	193
Genesee, New York	22	3,117	142	22	3,693	168	23	3,823	166	24	3,810	159	21	2,534	121
Niagara, New York	12	3,458	288	11	3,324	302	16	4,131	258	17	3,676	216	16	3,756	235
Buffalo Creek, New York	219	101,257	462	215	100,757	469	219	109,575	500	215	116,484	542	200	108,200	541
Dunkirk, New York	4	644	161	2	47	24	2	47	24	1	24	24	1	24	24
Erie, Pennsylvania	35	23,464	670	39	28,326	726	43	29,610	689	37	28,514	771	36	28,374	772
Cuyahoga, Ohio	175	64,286	367	181	75,548	417	187	81,328	435	183	78,252	428	184	87,010	473
Sandusky, Ohio	83	14,164	171	80	15,547	194	87	16,582	191	83	18,189	219	83	22,067	266
Miami, Ohio	53	10,506	198	40	15,338	313	47	15,012	319	48	15,948	332	52	17,426	355
Detroit, Michigan	313	70,815	226	303	77,699	256	312	82,934	266	309	88,702	287	309	93,547	305
Huron, Michigan	303	51,613	170	337	63,031	187	343	69,114	201	366	72,304	198	366	79,211	216
Superior, Michigan	67	5,462	82	79	9,137	116	89	12,800	144	90	16,101	179	93	16,491	177
Michigan, Michigan	296	34,306	116	305	34,978	115	345	37,610	109	351	36,764	105	320	34,039	106
Chicago, Illinois	384	76,478	199	367	75,595	206	368	73,179	199	372	70,979	191	366	68,822	188
Milwaukee, Wisconsin	348	67,855	195	353	75,920	215	362	85,448	236	365	82,403	226	347	76,403	220
Duluth, Minnesota	7	205	29	9	240	28	11	287	26	10	375	38	19	848	45

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.	Num- ber.	Tonnage.	Aver- age.
Oswegatchie, New York	31	3,499	113	41	5,151	126	44	10,070	229	47	11,225	239	53	13,252	251
Cape Vincent, New York	52	4,076	78	51	4,041	79	52	4,081	78	58	4,582	79	50	4,451	75
Oswego, New York	59	12,952	220	54	11,422	212	44	9,628	219	41	7,481	182	36	8,420	234
Genesee, New York	18	2,312	128	17	2,023	119	21	2,469	118	20	2,717	136	24	3,779	157
Niagara, New York	18	4,440	247	18	4,596	250	14	3,978	284	18	4,555	253	17	5,724	337
Buffalo Creek, New York	199	110,762	557	193	103,740	538	192	93,112	485	211	114,405	542	227	127,379	561
Dunkirk, New York	1	24	24	1	24	24	2	48	24	1	24	24	4	508	127
Erie, Pennsylvania	39	28,491	731	37	28,142	761	35	30,489	871	34	27,749	816	38	29,374	773
Cuyahoga, Ohio	183	92,640	506	194	101,493	523	205	123,889	604	221	147,590	669	241	176,804	734
Sandusky, Ohio	77	21,841	284	82	24,020	293	76	24,023	316	79	27,443	347	82	30,580	373
Miami, Ohio	54	17,405	322	57	17,862	313	63	17,900	284	64	18,756	293	59	16,564	281
Detroit, Michigan	302	93,719	310	305	100,146	328	285	103,032	362	282	113,921	390	281	127,430	453
Huron, Michigan	362	83,743	231	357	86,292	242	377	102,073	271	393	113,414	289	450	131,631	293
Superior, Michigan	91	16,247	179	102	15,807	155	105	17,092	163	120	21,668	181	122	30,346	246
Michigan, Michigan	316	32,683	103	312	31,876	102	300	29,762	99	295	27,748	94	304	30,382	106
Chicago, Illinois	361	67,467	187	352	66,730	190	356	72,420	203	345	74,227	215	342	73,528	215
Milwaukee, Wisconsin	355	79,359	224	352	79,052	225	350	76,515	219	374	86,852	232	369	88,753	241
Duluth, Minnesota	22	953	43	22	823	37	20	735	37	28	1,832	65	29	1,938	67

COMPARATIVE STATISTICS—Continued.

TABLE 30.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS, 1880-1889—AVERAGE ANNUAL NUMBER AND TONNAGE OF ALL CRAFT REGISTERED AT THE CUSTOMS DISTRICTS OF THE GREAT LAKES AND ST. LAWRENCE RIVER, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

STEAMERS.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Oswegatchie, New York.....	16	1889	21	1880	12	1882	15	9	2,687	1889	7,767	1880	765	1886	1,059	7,002
Cape Vincent, New York.....	20	1889	24	1881	13	1880	20	11	1,088	1889	1,684	1883	568	1886	1,411	1,118
Oswego, New York.....	21	1881	25	1887	18	1884	21	7	1,609	1889	3,582	1880	957	1887	1,839	2,025
Genesee, New York.....	15	1883	17	1885	12	1881	14	5	1,738	1883	2,501	1885	1,020	1889	1,769	1,481
Niagara, New York.....	7	1888	9	1880	4	1884	7	5	1,917	1889	3,440	1886	1,470	1880	1,786	1,970
Buffalo Creek, New York.....	138	1889	183	1880	115	1887	139	68	78,950	1889	109,440	1880	57,858	1886	78,954	51,482
Dunkirk, New York.....	2	1889	3	1881	1	1880	2	2	118	1889	484	1881	23	1880	37	461
Erie, Pennsylvania.....	29	1889	34	1880	23	1885	29	11	24,741	1889	28,063	1880	18,353	1884	24,738	9,710
Cuyahoga, Ohio.....	85	1889	132	1880	55	1886	85	77	55,947	1889	119,293	1880	21,313	1886	54,792	97,980
Sandusky, Ohio.....	35	1889	40	1880	28	1884	34	21	9,109	1889	16,692	1880	4,743	1886	9,320	11,949
Miami, Ohio.....	29	1889	36	1880	23	1882	28	13	7,413	1889	9,497	1880	3,417	1881	7,330	6,080
Detroit, Michigan.....	137	1889	149	1880	113	1887	137	36	54,715	1889	87,003	1880	34,738	1884	54,291	52,295
Huron, Michigan.....	138	1889	186	1880	104	1886	138	82	34,443	1889	60,109	1880	18,363	1886	84,273	41,740
Superior, Michigan.....	67	1889	90	1880	47	1885	63	43	9,132	1889	22,851	1880	2,180	1886	9,538	20,671
Michigan, Michigan.....	165	1883	180	1880	129	1887	168	51	16,897	1884	18,673	1880	15,145	1886	17,158	3,520
Chicago, Illinois.....	138	1886	216	1881	107	1887	137	109	20,781	1886	51,011	1880	9,950	1887	22,606	41,061
Milwaukee, Wisconsin.....	108	1880	131	1880	89	1883	107	42	30,213	1889	51,162	1880	16,981	1882	29,117	34,181
Duluth, Minnesota.....	16	1889	26	1880	6	1887	18	20	610	1889	1,312	1880	155	1886	625	1,157

SAILING VESSELS.

Oswegatchie, New York.....	7	1889	9	1883	3	1881	7	6	843	1889	2,539	1883	346	1886	940	2,193
Cape Vincent, New York.....	32	1880	35	1881	26	1883	32	9	3,163	1880	4,634	1884	2,567	1888	3,015	2,067
Oswego, New York.....	39	1880	66	1889	17	1885	38	49	10,342	1880	16,108	1889	4,838	1885	10,465	11,270
Genesee, New York.....	7	1880	10	1888	4	1882	7	6	1,251	1889	2,010	1888	756	1884	1,292	1,254
Niagara, New York.....	9	1886	11	1881	7	1887	9	4	2,212	1886	3,036	1880	1,672	1887	2,284	1,364
Buffalo Creek, New York.....	46	1880	77	1888	25	1884	40	52	23,085	1880	36,877	1888	13,248	1884	20,660	23,629
Dunkirk, New York.....	1	1880	2	1889	1	1885	1	1	82	1880	607	1889	24	1885	24	583
Erie, Pennsylvania.....	9	1880	12	1889	4	1884	9	8	3,511	1880	5,111	1889	1,311	1886	3,421	3,800
Cuyahoga, Ohio.....	108	1880	119	1885	101	1886	108	18	46,174	1889	56,786	1881	40,962	1886	46,328	15,824
Sandusky, Ohio.....	45	1882	56	1889	33	1885	45	23	12,037	1884	14,445	1880	9,008	1888	12,221	5,437
Miami, Ohio.....	21	1888	28	1882	15	1884	20	13	7,405	1888	10,483	1880	4,845	1884	7,506	5,638
Detroit, Michigan.....	159	1880	166	1889	125	1883	153	41	37,421	1888	42,286	1880	29,912	1885	38,198	12,374
Huron, Michigan.....	180	1889	263	1880	130	1885	179	133	36,899	1889	71,432	1880	12,875	1885	37,944	58,567
Superior, Michigan.....	29	1888	36	1880	20	1881	29	16	6,983	1888	8,717	1880	3,282	1887	6,804	5,435
Michigan, Michigan.....	142	1882	158	1888	123	1884	143	35	14,462	1882	17,006	1888	11,419	1884	14,585	5,587
Chicago, Illinois.....	224	1880	275	1886	136	1885	226	139	51,163	1880	66,528	1886	15,719	1885	52,446	50,809
Milwaukee, Wisconsin.....	250	1881	263	1887	236	1888	249	27	49,613	1882	56,256	1889	37,591	1880	50,800	18,665
Duluth, Minnesota.....	1	1881	2	1880	1	1886	1	1	82	1889	88	1880	50	1882	79	38

BARGES.

Oswegatchie, New York.....	12	1889	23	1880	7	1885	12	16	2,131	1888	3,214	1880	1,244	1885	2,026	1,970
Cape Vincent, New York.....	1	.....	.....	.....	.....	.....	.....	.....	45	1889	73	1880	35	1884	35	38
Oswego, New York.....	1	.....	.....	.....	.....	.....	.....	.....	201	.....	.....	.....	.....	.....	.....	.....
Genesee, New York.....	1	.....	.....	.....	.....	.....	.....	.....	290	.....	.....	.....	.....	.....	.....	.....
Niagara, New York.....	1	.....	.....	.....	.....	.....	.....	.....	256	.....	.....	.....	.....	.....	.....	.....
Buffalo Creek, New York.....	25	1882	30	1880	10	1886	25	20	6,533	1885	8,851	1889	915	1886	6,479	7,936
Dunkirk, New York.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Erie, Pennsylvania.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cuyahoga, Ohio.....	2	1882	5	1880	1	1884	2	4	763	1882	1,866	1885	203	1889	725	1,663
Sandusky, Ohio.....	2	.....	.....	.....	.....	.....	.....	.....	335	1880	413	1888	289	1883	362	124
Miami, Ohio.....	4	1880	6	1888	2	1884	4	4	1,615	1880	2,244	1888	313	1884	1,679	1,931
Detroit, Michigan.....	14	1880	34	1888	6	1884	11	28	3,658	1880	6,164	1888	671	1884	2,999	5,498
Huron, Michigan.....	47	1885	78	1889	1	1885	42	77	13,900	1883	23,593	1889	90	1885	12,968	23,503
Superior, Michigan.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Michigan, Michigan.....	7	1880	13	1889	3	1885	4	10	1,656	1880	3,125	1889	572	1885	781	2,553
Chicago, Illinois.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Milwaukee, Wisconsin.....	1	.....	.....	.....	.....	.....	.....	.....	74	.....	.....	.....	.....	.....	.....	.....
Duluth, Minnesota.....	1	1889	2	.....	.....	1887	1	2	281	1880	538	1885	110	1887	110	428

ALL CRAFT.

Oswegatchie, New York.....	35	1888	47	1883	23	1882	31	24	5,660	1889	13,252	1880	2,367	1886	5,151	10,885
Cape Vincent, New York.....	52	1889	59	1881	39	1885	52	20	4,268	1880	5,281	1884	3,293	1882	4,378	1,988
Oswego, New York.....	60	1880	88	1889	36	1885	59	52	12,051	1880	17,065	1888	7,481	1886	11,422	9,584
Genesee, New York.....	21	1883	24	1886	17	1884	21	7	3,028	1882	3,823	1886	2,023	1880	3,117	1,800
Niagara, New York.....	16	1885	18	1881		1882	16	7	4,155	1889	5,724	1881	3,324	1882	4,181	2,400
Buffalo Creek, New York.....	209	1889	227	1887	192	1888	211	85	108,568	1889	127,379	1887	93,112	1884	108,200	34,267
Dunkirk, New York.....	2	1880	4	1883		1887	2	3	141	1880	644	1883	24	1887	48	620
Erie, Pennsylvania.....	37	1882	43	1888	34	1883	37	9	28,253	1887	30,483	1883	23,464	1881	28,326	7,019
Cuyahoga, Ohio.....	195	1880	241	1880	175	1886	194	66	102,884	1889	176,804	1880	64,286	1886	101,493	112,518
Sandusky, Ohio.....	81	1882	87	1887	76	1886	82	11	21,448	1889	30,580	1880	14,164	1885	21,842	16,416
Miami, Ohio.....	55	1888	64	1882	47	1885	54	17	16,272	1888	18,756	1880	10,506	1889	16,564	8,250
Detroit, Michigan.....	301	1882	312	1889	281	1885	302	31	95,195	1889	127,430	1880	70,815	1885	93,719	56,615
Huron, Michigan.....	365	1889	459	1880	303	1883	366	147	85,243	1889	131,631	1880	51,613	1886	86,282	80,018
Superior, Michigan.....	96	1889	122	1880	67	1884	93	55	16,115	1889	30,346	1880	5,462	1883	16,101	24,884
Michigan, Michigan.....	314	1881	351	1888	295	1885	316	56	33,015	1882	37,610	1888	27,748	1885	32,683	9,862
Chicago, Illinois.....	361	1880	384	1889	342	1885	361	42	71,945	1880	76,478	1886	66,730	1887	72,420	9,748
Milwaukee, Wisconsin.....	358	1888	374	1884	347	1885	355	27	79,856	1889	98,753	1880	67,855	1885	79,359	20,898
Duluth, Minnesota.....	18	1889	29	1880	7	1884	19	22	825	1889	1,938	1880	205	1886	823	1,733

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 31.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (GENERAL)—NUMBER AND TONNAGE OF ALL STEAMERS, SAILING VESSELS, AND BARGES BUILT IN THE LAKE AND RIVER CUSTOMS DISTRICTS FOR THE YEARS 1880 TO 1889, INCLUSIVE.

CUSTOMS DISTRICTS.	1880							
	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	117	20,856.86	63	14,106.46	47	5,426.76	7	1,323.64
Oswegatchie, New York.....	1	6.93	1	6.93				
Cape Vincent, New York.....	5	308.41	2	113.04	3	195.37		
Oswego, New York.....	3	589.70	1	238.41	2	351.29		
Niagara, New York.....	2	225.06			1	99.06	1	126.00
Genesee, New York.....	1	125.83	1	125.83				
Buffalo Creek, New York.....	9	2,151.94	7	2,121.93	2	30.01		
Cuyahoga, Ohio.....	9	3,310.64	7	3,267.87	2	42.77		
Sandusky, Ohio.....	3	1,370.57	3	1,370.57				
Miami, Ohio.....	2	335.15	1	18.47			1	316.66
Detroit, Michigan.....	21	7,501.74	12	4,933.60	7	2,255.59	2	312.55
Huron, Michigan.....	21	1,502.88	4	142.26	15	1,290.35	2	70.57
Michigan, Michigan.....	23	764.27	12	399.71	11	364.56		
Chicago, Illinois.....	1	37.04	1	37.04				
Milwaukee, Wisconsin.....	16	2,626.70	11	1,330.80	4	797.76	1	496.14

CUSTOMS DISTRICTS.	1881							
	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	175	65,127.71	109	49,080.21	52	12,936.32	14	3,111.18
Oswegatchie, New York.....	1	112.27					1	112.27
Cape Vincent, New York.....	4	153.86	3	52.89	1	100.97		
Oswego, New York.....	6	377.21	4	157.61			2	219.00
Niagara, New York.....								
Genesee, New York.....	2	265.72	2	265.72				
Buffalo Creek, New York.....	31	6,927.75	25	5,729.61			6	1,198.14
Cuyahoga, Ohio.....	14	14,152.05	12	13,853.56	2	298.49		
Sandusky, Ohio.....	3	254.80	1	161.24	1	21.36	1	72.39
Miami, Ohio.....	3	2,701.08			3	2,701.08		
Detroit, Michigan.....	24	15,633.14	17	12,999.85	7	2,633.29		
Huron, Michigan.....	30	13,256.89	16	9,829.65	10	1,918.27	4	1,508.97
Superior, Michigan.....	5	1,087.28	1	8.50	4	1,078.78		
Michigan, Michigan.....	23	2,838.26	16	2,615.63	7	222.03		
Chicago, Illinois.....	6	1,425.54	4	893.62	2	531.92		
Milwaukee, Wisconsin.....	23	5,941.86	8	2,512.33	15	3,429.53		

CUSTOMS DISTRICTS.	1882							
	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	199	51,748.66	128	33,506.45	66	16,163.77	5	1,088.44
Oswegatchie, New York.....	1	62.00	1	62.00				
Cape Vincent, New York.....	3	48.53			3	48.53		
Oswego, New York.....	1	10.30	1	10.30				
Genesee, New York.....								
Niagara, New York.....	3	104.16	1	28.06	1	12.10	1	64.00
Buffalo Creek, New York.....	23	3,294.44	20	1,814.71			3	1,479.73
Erie, Pennsylvania.....	4	77.77	4	77.77				
Cuyahoga, Ohio.....	18	12,002.80	13	11,319.94	5	1,582.86		
Sandusky, Ohio.....	5	178.98	3	140.66	2	38.32		
Detroit, Michigan.....	23	13,185.75	15	8,750.07	8	4,435.68		
Huron, Michigan.....	36	11,953.09	13	5,323.14	22	6,185.24	1	444.71
Superior, Michigan.....	4	138.25	4	138.25				
Michigan, Michigan.....	35	3,501.65	26	2,784.61	9	716.94		
Chicago, Illinois.....	15	1,903.61	11	351.05	4	1,551.66		
Milwaukee, Wisconsin.....	28	4,387.43	16	2,794.99	12	1,592.44		

CUSTOMS DISTRICTS.	1883							
	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	134	24,562.25	100	17,253.42	31	6,140.46	3	1,156.37
Oswegatchie, New York.....	1	15.88	1	15.88				
Cape Vincent, New York.....	3	57.00	1	12.56	2	45.04		
Oswego, New York.....	3	48.84	2	35.64	1	13.20		
Genesee, New York.....								
Buffalo Creek, New York.....	22	4,493.49	21	4,169.24			1	324.25
Cuyahoga, Ohio.....	8	5,097.71	5	1,234.46	3	3,863.25		
Sandusky, Ohio.....	1	5.86			1	5.86		
Miami, Ohio.....	4	77.36	4	77.36				
Detroit, Michigan.....	11	2,504.92	10	2,454.54	1	50.38		
Huron, Michigan.....	24	7,418.94	15	5,650.50	7	934.32	2	694.15
Superior, Michigan.....	3	65.88	1	22.36	2	43.52		
Michigan, Michigan.....	20	1,301.03	15	1,205.56	5	95.47		
Chicago, Illinois.....	12	582.72	9	344.77	3	237.95		
Milwaukee, Wisconsin.....	21	2,847.64	15	1,996.17	6	851.47		
Duluth, Minnesota.....	1	34.38	1	34.38				

TRANSPORTATION ON THE GREAT LAKES.

367

COMPARATIVE STATISTICS—Continued.

TABLE 21.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (GENERAL)—Continued.

1884

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	110	27,882.99	80	20,205.69	29	7,667.30	1	10.00
Oswegatchie, New York	4	191.19	2	152.12	1	29.07	1	10.00
Cape Vincent, New York	2	37.88	2	37.88				
Oswego, New York	1	54.09	1	54.09				
Genesee, New York	1	20.39	1	20.39				
Niagara, New York	1	137.43	1	137.43				
Buffalo Creek, New York	20	4,279.33	20	4,279.33				
Cuyahoga, Ohio	7	3,032.70	5	1,924.77	2	1,107.93		
Sandusky, Ohio	2	1,958.42	1	111.46	1	1,846.96		
Miami, Ohio	2	74.56	2	74.56				
Detroit, Michigan	15	9,561.23	10	8,505.58	5	1,055.65		
Huron, Michigan	19	6,373.32	10	3,519.29	9	2,854.03		
Superior, Michigan	3	182.83	2	131.72	1	51.11		
Michigan, Michigan	18	770.16	14	632.64	4	137.52		
Chicago, Illinois	5	382.54	5	382.54				
Milwaukee, Wisconsin	8	770.25	3	200.89	5	569.36		
Duluth, Minnesota	2	56.67	1	41.00	1	15.67		

1885

Total	95	24,508.79	64	20,228.52	28	3,729.74	3	550.53
Oswegatchie, New York	5	408.41	4	99.55			1	309.06
Cape Vincent, New York	10	915.73	6	791.20	4	124.53		
Oswego, New York								
Genesee, New York								
Niagara, New York	1	111.33			1	111.33		
Buffalo Creek, New York	8	2,307.30	8	2,307.30				
Erie, Pennsylvania	3	73.35	3	73.35				
Cuyahoga, Ohio	4	4,620.18	4	4,620.18				
Sandusky, Ohio	3	109.46	2	55.31	1	54.15		
Miami, Ohio	1	97.89	1	97.89				
Detroit, Michigan	9	6,082.32	5	5,077.23	3	973.32	1	131.77
Huron, Michigan	14	6,018.92	5	4,641.84	9	1,377.08		
Superior, Michigan	1	6.44			1	6.44		
Michigan, Michigan	11	1,359.14	7	976.94	4	382.20		
Chicago, Illinois	8	188.02	8	188.02				
Milwaukee, Wisconsin	15	2,063.39	10	1,262.70	5	800.69		
Duluth, Minnesota	2	146.91	1	37.21			1	109.70

1886

Total	66	18,254.85	46	12,610.73	15	5,232.34	5	411.78
Oswegatchie, New York	3	148.44	2	50.07			1	98.37
Cape Vincent, New York	2	40.54	1	0.61	1	33.93		
Oswego, New York	1	13.51	1	13.51				
Genesee, New York	2	23.16	1	14.46	1	8.70		
Niagara, New York								
Buffalo Creek, New York	10	585.22	7	355.16			3	230.06
Erie, Pennsylvania	1	13.78	1	13.78				
Cuyahoga, Ohio	5	5,666.21	5	5,666.21				
Sandusky, Ohio	5	219.64	5	219.64				
Detroit, Michigan	3	2,998.64	1	1,923.95	1	991.34	1	83.35
Huron, Michigan	9	6,650.82	5	3,000.57	4	3,650.25		
Superior, Michigan	2	308.35	1	17.38	1	290.97		
Michigan, Michigan	13	462.12	7	216.59	6	245.53		
Chicago, Illinois	3	89.37	3	89.37				
Milwaukee, Wisconsin	6	1,023.43	6	1,023.43				
Duluth, Minnesota	1	11.62			1	11.62		

1887

Total	117	52,454.42	75	47,183.46	34	4,892.52	8	378.44
Cape Vincent, New York	2	51.45			2	51.45		
Oswego, New York	4	124.74	3	117.65	1	7.00		
Genesee, New York	5	69.61	5	69.61				
Niagara, New York	8	857.95	7	837.36			1	20.59
Buffalo Creek, New York	14	5,180.91	12	4,961.88			2	199.03
Dunkirk, New York	2	58.88	2	58.88				
Erie, Pennsylvania	1	13.40	1	13.40				
Cuyahoga, Ohio	12	16,351.31	10	15,256.31	2	1,095.00		
Detroit, Michigan	11	10,554.08	8	8,055.89	3	1,898.19		
Huron, Michigan	22	13,690.34	11	12,131.93	6	1,399.50	5	158.82
Superior, Michigan	2	72.94			2	72.94		
Michigan, Michigan	18	1,605.29	11	1,470.85	7	134.44		
Chicago, Illinois	9	830.48	1	694.94	8	185.54		
Milwaukee, Wisconsin	7	2,963.04	4	2,914.76	3	48.28		

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 31.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (GENERAL)—Continued.

1888

CUSTOMS DISTRICTS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	183	96,314.73	139	86,715.98	42	9,130.98	2	467.77
Oswegatchie, New York	3	112.50	2	73.03			1	39.47
Cape Vincent, New York	6	130.28	5	115.26	1	15.02		
Oswego, New York	5	346.59	4	338.19	1	8.40		
Niagara, New York	7	864.91	7	864.91				
Buffalo Creek, New York	23	8,049.95	23	8,049.95				
Erie, Pennsylvania	3	127.84	3	127.84				
Cuyahoga, Ohio	23	29,786.13	22	28,527.51	1	1,258.62		
Sandusky, Ohio	5	396.86	3	156.95	2	239.91		
Miami, Ohio	2	144.12	2	144.12				
Detroit, Michigan	19	20,534.68	17	18,628.35	2	1,906.33		
Huron, Michigan	31	22,275.08	19	17,825.58	12	4,449.50		
Superior, Michigan	5	856.95	2	27.00	3	829.35		
Michigan, Michigan	17	2,579.85	12	2,521.31	5	56.54		
Chicago, Illinois	3	98.41	2	86.79	1	11.62		
Milwaukee, Wisconsin	30	9,582.28	16	9,226.59	14	355.69		
Duluth, Minnesota	1	428.30					1	428.30

1889

Total	179	102,051.75	145	93,706.73	32	8,097.76	2	247.26
Oswegatchie, New York	1	13.37	1	13.37				
Cape Vincent, New York	4	135.33	1	12.67	2	49.30	1	73.36
Oswego, New York	1	51.47	1	51.47				
Genesee, New York								
Niagara, New York	1	141.45	1	141.45				
Buffalo Creek, New York	20	5,239.78	20	5,239.78				
Erie, Pennsylvania	2	29.41	2	20.41				
Cuyahoga, Ohio	23	31,205.32	22	31,144.00	1	61.32		
Sandusky, Ohio	2	49.97	2	49.97				
Miami, Ohio	5	872.18	4	859.24	1	12.94		
Detroit, Michigan	20	22,425.51	15	20,128.46	5	2,297.05		
Huron, Michigan	39	25,459.33	20	20,979.90	9	4,305.53	1	173.90
Superior, Michigan	3	80.36	2	69.61	1	10.75		
Michigan, Michigan	28	5,188.59	21	4,382.90	7	805.69		
Chicago, Illinois	2	79.58	2	28.58				
Milwaukee, Wisconsin	28	11,131.10	22	10,575.92	6	555.18		

RECAPITULATION.

YEARS.	TOTAL.		STEAMERS.		SAILING VESSELS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for 10 years	1,375	483,753.01	949	394,087.65	376	79,417.95	50	9,647.41
1880	117	20,856.86	63	14,106.46	47	5,426.76	7	1,322.64
1881	175	65,127.71	109	49,080.21	52	12,936.32	14	3,111.18
1882	199	51,748.66	128	33,596.45	66	16,163.77	5	1,988.44
1883	134	24,552.25	100	17,253.42	31	6,140.46	3	1,158.37
1884	110	27,882.99	80	20,205.69	29	7,667.30	1	10.00
1885	95	24,508.79	64	20,228.52	28	3,729.74	3	550.53
1886	66	18,254.85	46	12,610.73	15	5,232.34	5	411.79
1887	117	52,454.42	75	47,183.46	34	4,892.52	8	378.44
1888	183	96,314.73	139	86,715.98	42	9,130.98	2	467.77
1889	179	102,051.75	145	93,706.73	32	8,097.76	2	247.26

TRANSPORTATION ON THE GREAT LAKES.

369

COMPARATIVE STATISTICS—Continued.

TABLE 32.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (STEAMERS)—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN THE LAKE AND RIVER CUSTOMS DISTRICTS FOR THE DECADE 1880-1889, TOGETHER WITH DATE SHOWING THE NUMBER AND TONNAGE OF PROPELLER, SIDE-WHEEL, AND STERN-WHEEL STEAMERS BUILT EACH YEAR IN EACH DISTRICT.

1880								
CUSTOMS DISTRICTS.	ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.		STERN-WHEEL.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	63	14,106.46	55	12,014.71	3	1,929.53	5	102.22
Oswegatchie, New York.....	1	0.93	1	6.93				
Cape Vincent, New York.....	2	113.04	2	113.04				
Oswego, New York.....	1	238.41	1	238.41				
Genesee, New York.....	1	125.83			1	125.83		
Buffalo Creek, New York.....	7	2,121.93	7	2,121.93				
Cuyahoga, Ohio.....	7	3,267.87	7	3,267.87				
Sandusky, Ohio.....	3	1,370.57	3	1,370.57				
Miami, Ohio.....	1	18.47					1	18.47
Detroit, Michigan.....	12	4,933.00	11	3,338.67	1	1,594.93		
Huron, Michigan.....	4	142.28	4	142.28				
Michigan, Michigan.....	12	399.71	8	255.96			4	143.75
Chicago, Illinois.....	1	37.04	1	37.04				
Milwaukee, Wisconsin.....	11	1,330.80	10	1,122.03	1	208.77		
1881								
Total.....	109	49,080.21	106	47,846.79	2	1,107.38	1	36.04
Cape Vincent, New York.....	3	52.89	3	52.89				
Oswego, New York.....	4	157.61	4	157.61				
Genesee, New York.....	2	265.72	1	217.06	1	48.66		
Buffalo Creek, New York.....	25	5,729.61	25	5,729.61				
Cuyahoga, Ohio.....	12	13,853.56	11	13,817.52			1	36.04
Sandusky, Ohio.....	1	161.24	1	161.24				
Detroit, Michigan.....	17	12,999.85	16	11,851.13	1	1,148.72		
Huron, Michigan.....	16	9,829.65	16	9,829.65				
Superior, Michigan.....	1	8.50	1	8.50				
Michigan, Michigan.....	16	2,615.63	16	2,615.63				
Chicago, Illinois.....	4	893.62	4	893.62				
Milwaukee, Wisconsin.....	8	2,512.33	8	2,512.33				
1882								
Total.....	128	33,590.45	108	20,858.04	18	10,846.81	2	1,890.70
Oswegatchie, New York.....	1	62.00	1	62.00				
Oswego, New York.....	1	10.30	1	10.30				
Niagara, New York.....	1	28.06	1	28.06				
Buffalo Creek, New York.....	20	1,814.71	19	704.45	1	1,110.26		
Erie, Pennsylvania.....	4	77.77	3	31.67	1	46.10		
Cuyahoga, Ohio.....	13	11,319.94			11	9,429.24	2	1,890.70
Sandusky, Ohio.....	3	140.66			3	140.66		
Detroit, Michigan.....	15	8,750.07	15	8,750.07				
Huron, Michigan.....	13	5,323.14	13	5,323.14				
Superior, Michigan.....	4	138.25	4	138.25				
Michigan, Michigan.....	26	2,784.61	26	2,784.61				
Chicago, Illinois.....	11	351.95	11	351.95				
Milwaukee, Wisconsin.....	16	2,794.99	14	2,674.44	2	120.55		
1883								
Total.....	100	17,253.42	96	17,032.07	4	221.35		
Oswegatchie, New York.....	1	15.88	1	15.88				
Cape Vincent, New York.....	1	12.56	1	12.56				
Oswego, New York.....	2	35.64	2	35.64				
Buffalo Creek, New York.....	21	4,169.24	21	4,169.24				
Cuyahoga, Ohio.....	5	1,234.46	5	1,234.46				
Miami, Ohio.....	4	77.36	4	77.36				
Detroit, Michigan.....	10	2,454.54	10	2,454.54				
Huron, Michigan.....	15	5,650.50	15	5,650.50				
Superior, Michigan.....	1	22.36	1	22.36				
Michigan, Michigan.....	15	1,205.56	15	1,205.56				
Chicago, Illinois.....	9	344.77	9	344.77				
Milwaukee, Wisconsin.....	15	1,990.17	11	1,774.82	4	221.35		
Duluth, Minnesota.....	1	34.38	1	34.38				

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 32.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (STEAMERS)—Continued.

1884

CUSTOMS DISTRICTS.	ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.		STERN-WHEEL.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	80	20,205.69	73	17,206.94	3	2,742.50	4	256.19
Oswegatchie, New York.....	2	152.12	2	152.12				
Cape Vincent, New York.....	2	37.88	2	37.88				
Oswego, New York.....	1	54.09	1	54.09				
Genesee, New York.....	1	20.39	1	20.39				
Niagara, New York.....	1	137.43	1	137.43				
Buffalo Creek, New York.....	20	4,279.33	19	3,866.66	1	412.07		
Cuyahoga, Ohio.....	5	1,924.77	5	1,924.77				
Sandusky, Ohio.....	1	111.46	1	111.46				
Miami, Ohio.....	2	74.56	2	74.56				
Detroit, Michigan.....	10	8,505.58	8	6,175.69	2	2,329.89		
Huron, Michigan.....	10	3,519.29	10	3,519.29				
Superior, Michigan.....	2	131.72	2	131.72				
Michigan, Michigan.....	14	632.64	11	527.11			3	106.53
Chicago, Illinois.....	5	382.54	5	382.54				
Milwaukee, Wisconsin.....	3	200.89	2	50.23			1	150.66
Duluth, Minnesota.....	1	41.00	1	41.00				

1885

Total.....	64	20,228.52	60	19,371.66	4	856.86		
Oswegatchie, New York.....	4	99.35	4	99.35				
Cape Vincent, New York.....	6	791.20	4	33.47	2	757.73		
Buffalo Creek, New York.....	8	2,307.30	8	2,307.30				
Erie, Pennsylvania.....	3	73.35	3	73.35				
Cuyahoga, Ohio.....	4	4,620.18	4	4,620.18				
Sandusky, Ohio.....	2	55.31	2	55.31				
Miami, Ohio.....	1	97.89	1	97.89				
Detroit, Michigan.....	5	5,077.23	5	5,077.23				
Huron, Michigan.....	5	4,641.84	5	4,641.84				
Michigan, Michigan.....	7	976.94	7	976.94				
Chicago, Illinois.....	8	188.02	8	188.02				
Milwaukee, Wisconsin.....	10	1,262.70	9	1,200.78	1	61.92		
Duluth, Minnesota.....	1	37.21			1	37.21		

1886

Total.....	46	12,610.73	43	10,024.40	2	2,462.15	1	124.18
Oswegatchie, New York.....	2	50.07	2	50.07				
Cape Vincent, New York.....	1	6.61	1	6.61				
Oswego, New York.....	1	13.51	1	13.51				
Genesee, New York.....	1	14.46	1	14.46				
Buffalo Creek, New York.....	7	355.16	7	355.16				
Erie, Pennsylvania.....	1	13.78	1	13.78				
Cuyahoga, Ohio.....	5	5,666.21	4	5,128.01	1	538.20		
Sandusky, Ohio.....	5	219.64	4	95.46			1	124.18
Detroit, Michigan.....	1	1,923.95			1	1,923.95		
Huron, Michigan.....	5	3,000.57	5	3,000.57				
Superior, Michigan.....	1	17.38	1	17.38				
Michigan, Michigan.....	7	216.59	7	216.59				
Chicago, Illinois.....	3	89.37	3	89.37				
Milwaukee, Wisconsin.....	6	1,023.43	6	1,023.43				

1887

Total.....	75	47,183.46	74	47,160.07	1	17.39		
Oswego, New York.....	3	117.65	3	117.65				
Genesee, New York.....	7	69.61	5	69.61				
Niagara, New York.....	7	837.36	7	837.36				
Buffalo Creek, New York.....	12	4,961.88	11	4,944.49	1	17.39		
Dunkirk, New York.....	2	58.88	2	58.88				
Erie, Pennsylvania.....	1	13.40	1	13.40				
Cuyahoga, Ohio.....	10	15,256.31	10	15,256.31				
Detroit, Michigan.....	8	8,655.89	8	8,655.89				
Huron, Michigan.....	11	12,131.93	11	12,131.93				
Michigan, Michigan.....	11	1,470.85	11	1,470.85				
Chicago, Illinois.....	1	694.94	1	694.94				
Milwaukee, Wisconsin.....	4	2,914.76	4	2,914.76				

TRANSPORTATION ON THE GREAT LAKES.

371

COMPARATIVE STATISTICS—Continued.

TABLE 32.—SHIPBUILDING FOR THE 10 YEARS, 1880-1889 (STEAMERS)—Continued.

1888

CUSTOMS DISTRICTS.	ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.		STERN-WHEEL.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total.....	139	86,715.98	136	86,564.69	2	114.97	1	36.32
Oswegatchie, New York.....	2	73.03	2	73.03				
Cape Vincent, New York.....	5	115.26	5	115.26				
Oswego, New York.....	4	338.19	4	338.19				
Niagara, New York.....	7	864.91	7	864.91				
Buffalo Creek, New York.....	23	8,049.95	23	8,049.95				
Erie, Pennsylvania.....	3	127.84	3	127.84				
Cuyahoga, Ohio.....	22	28,527.51	22	28,527.51				
Sandusky, Ohio.....	3	156.95	2	120.63			1	36.32
Miami, Ohio.....	2	144.12	2	144.12				
Detroit, Michigan.....	17	18,628.35	17	18,628.35				
Huron, Michigan.....	19	17,825.58	19	17,825.58				
Superior, Michigan.....	2	27.60	2	27.60				
Michigan, Michigan.....	12	2,523.31	11	2,435.03	1	88.28		
Chicago, Illinois.....	2	86.79	1	60.10	1	26.69		
Milwaukee, Wisconsin.....	16	9,226.59	16	9,226.59				

1889

Total.....	145	93,706.73	138	89,188.68	6	4,328.09	1	189.96
Oswegatchie, New York.....	1	13.37	1	13.37				
Cape Vincent, New York.....	1	12.67	1	12.67				
Oswego, New York.....	1	51.47	1	51.47				
Niagara, New York.....	1	141.45	1	141.45				
Buffalo Creek, New York.....	20	5,239.78	20	5,239.78				
Erie, Pennsylvania.....	2	29.41	2	29.41				
Cuyahoga, Ohio.....	22	31,144.00	21	29,632.88	1	1,511.12		
Sandusky, Ohio.....	2	49.97	2	49.97				
Miami, Ohio.....	4	859.24	3	300.65	1	558.59		
Detroit, Michigan.....	15	20,128.46	13	18,036.56	2	2,081.90		
Huron, Michigan.....	29	20,979.90	28	20,908.95	1	70.95		
Superior, Michigan.....	2	69.61	2	69.61				
Michigan, Michigan.....	21	4,382.90	21	4,382.90				
Chicago, Illinois.....	2	28.58	2	28.58				
Milwaukee, Wisconsin.....	22	10,575.92	20	10,290.43	1	95.53	1	189.96

RECAPITULATION.

YEARS.	ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.		STERN-WHEEL.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total for the 10 years.....	949	394,687.65	889	367,274.95	45	24,717.09	15	2,695.61
1880.....	63	14,106.46	55	12,014.71	3	1,929.53	5	162.22
1881.....	109	49,080.21	106	47,846.79	2	1,197.38	1	86.04
1882.....	128	33,596.45	108	20,858.94	18	10,846.81	2	1,890.70
1883.....	100	17,253.42	96	17,032.07	4	221.35		
1884.....	80	20,205.69	73	17,206.94	3	2,742.56	4	256.19
1885.....	64	20,228.52	60	19,371.66	4	856.86		
1886.....	46	12,610.73	43	10,024.40	2	2,462.15	1	124.18
1887.....	75	47,183.46	74	47,166.07	1	17.39		
1888.....	139	86,715.98	136	86,564.69	2	114.97	1	36.32
1889.....	145	93,706.73	138	89,188.68	6	4,328.09	1	189.96

CONGRESSIONAL APPROPRIATIONS.

TABLE 13.—APPROPRIATIONS BY DETAILED LOCALITIES—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS OF THE GREAT LAKES, AND OF THE RIVERS FLOWING INTO THEM, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, GIVEN BY DETAILS OF LOCALITY AND TIME.

LOCALITIES.	Date of earliest appropriations.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Total.....	1823	\$23,700,565	\$12,999,165	\$4,213,245	\$40,912,975
Lake Superior.....	1858	3,407,555	3,738,500	2,027,245	9,233,300
Agate bay, Minnesota.....	1886		37,500	25,000	62,500
Ashland harbor, Wisconsin.....	1886		82,500	60,000	142,500
Duluth harbor, Minnesota.....	1871	261,050	291,250	100,000	652,300
Eagle harbor, Michigan.....	1860	97,000			97,000
Grand Marais harbor, Minnesota.....	1879	10,000	85,000	22,350	117,350
Grand Marais harbor of refuge, Michigan.....	1879	10,000	291,250	50,000	351,250
Marquette harbor, Michigan.....	1860	297,230	48,000	40,000	385,230
Ontonagon harbor, Michigan.....	1867	202,600	95,500	10,000	308,100
Portage Lake ship canal, Michigan.....	1886		10,000	350,000	360,000
St. Marys river and canal, Michigan.....	1858	2,215,692	2,625,000	1,300,000	6,140,692
Superior and St. Louis bays, Wisconsin.....	1873	373,983	172,500	69,895	616,378
Lakes Huron and St. Clair.....	1852	1,934,310	1,511,890	245,500	3,691,700
Alpena harbor (Thunder bay), Michigan.....	1876	4,500	15,000	15,500	35,000
An Sable river and harbor, Michigan.....	1867	95,750	18,000		113,750
Belle river, Michigan.....	1881		14,000		14,000
Black river, Michigan.....	1888		10,000	35,000	45,000
Cheboygan harbor, Michigan.....	1871	91,000	57,000		148,000
Clinton river, Michigan.....	1852	11,500	30,000	10,000	51,500
Clinton harbor, Michigan.....	1882		3,000		3,000
Detroit river, Michigan.....	1874	175,000	528,000		703,000
Harbor of refuge at Sand Beach, Michigan.....	1871	700,000	420,000	30,000	1,150,000
St. Clair river, flats, and canal.....	1852	653,560	111,140	80,000	844,700
Saginaw river, Michigan.....	1866	195,000	298,750	75,000	568,750
Sebawaing harbor, Michigan.....	1875	8,000	7,000		15,000
Lake Michigan.....	1826	6,440,843	3,917,400	893,000	11,251,243
Ahnapee harbor, Wisconsin.....	1871	103,000	62,000	6,000	171,000
Black Lake harbor, Michigan.....	1852	217,615	47,000	10,000	274,615
Calumet harbor and river, Illinois.....	1870	277,000	135,400	70,000	482,400
Cedar river (Green Bay), Michigan.....	1882		30,000		30,000
Charlevoix harbor, Michigan.....	1876	31,000	62,500	9,000	102,500
Chicago harbor, Illinois.....	1833	1,134,005	870,000	100,000	2,104,005
Fox river (mouth of), Wisconsin.....	1867	40,000			40,000
Frankfort harbor, Michigan.....	1866	213,660	59,000	10,000	273,660
Grand Haven harbor, Michigan.....	1852	303,866	245,000	75,000	623,866
Grand river, Michigan.....	1881		50,000		50,000
Green Bay harbor, Wisconsin.....	1866	229,550	58,000	10,000	297,550
Kenosha harbor, Wisconsin.....	1844	194,307	33,500	17,000	244,807
Kewaunee harbor, Wisconsin.....	1881		55,000	20,000	75,000
Lake Winnebago, Wisconsin.....	1839	500			500
La Plaisance bay, Michigan.....	1826	19,803			19,803
Ludington harbor, Michigan.....	1867	196,185	156,250		352,435
Manistee harbor, Michigan.....	1867	183,000	65,000	50,000	298,000
Manistique harbor, Michigan.....	1880		6,000		6,000
Manitowoc harbor, Wisconsin.....	1852	240,820	59,000	8,000	307,820
Menominee harbor, Wisconsin.....	1871	153,000	59,000	54,000	266,000
Michigan city (outer harbor), Indiana.....	1836	679,889	304,375	50,000	1,034,264
Michigan city (inner harbor), Indiana.....	1880		76,875	7,500	84,375
Milwaukee bay, Wisconsin.....	1881		415,000	86,000	501,000
Milwaukee harbor, Wisconsin.....	1836	335,987	38,000		373,987
Muskegon harbor, Michigan.....	1867	140,000	130,000	50,000	320,000
Neenah river, Wisconsin.....	1839	2,500		100,000	102,500
New Buffalo harbor, Michigan.....	1852	78,000	5,000		83,000
Oconto harbor, Wisconsin.....	1881		68,000		68,000
Pensaukee harbor, Wisconsin.....	1882		15,000		15,000
Pentwater harbor, Michigan.....	1867	168,820	57,000	8,000	233,820
Petoskey harbor, Michigan.....	1890			15,000	15,000
Port Wash. Lgton, Wisconsin.....	1870	100,500	84,000	3,000	187,500
Portage Lake harbor of refuge, Michigan.....	1879	10,000	82,500	8,000	100,500
Racine harbor, Wisconsin.....	1844	201,285	46,000	17,500	264,785
St. Josephs harbor, Michigan.....	1836	280,113	67,000	20,000	367,113
St. Josephs river (survey), Michigan.....	1888		2,500	1,000	3,500
Saugatuck harbor, Michigan.....	1868	105,439	35,000		140,439
Sheboygan harbor, Wisconsin.....	1852	183,449	120,000	15,000	318,449
South Haven harbor, Michigan.....	1867	149,500	42,500	15,000	207,000
Sturgeon bay, Wisconsin.....	1873	110,000	55,000	3,000	168,000
Two Rivers harbor, Wisconsin.....	1871	140,000	60,500	3,000	203,500
Waukegan harbor, Illinois.....	1852	15,000	115,000	35,000	165,000
White River harbor, Michigan.....	1867	203,050	54,500	17,000	274,550

CONGRESSIONAL APPROPRIATIONS—Continued.

TABLE 33.—APPROPRIATIONS BY DETAILED LOCALITIES—Continued.

LOCALITIES.	Date of earliest appropriations.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Lake Erie.	1823	\$5,362,336	\$2,712,500	\$364,500	\$8,879,336
Ashtabula harbor, Ohio	1826	290,711	137,500	40,000	468,211
Black River harbor, Ohio	1879	175,205	45,000	12,000	232,205
Buffalo harbor, New York	1826	1,410,495	742,500	300,000	2,452,995
Cattaraugus creek, New York	1836	57,410			57,410
Cleveland harbor, Ohio	1825	654,882	793,750	75,000	1,523,632
Conneaut harbor, Ohio	1829	106,629	6,000		112,629
Cunningham creek, Ohio	1826	19,781			19,781
Dunkirk harbor, New York	1827	430,946	55,000	20,000	505,946
Erie harbor, Pennsylvania	1823	616,367	235,500	40,000	891,867
Grand River harbor (Fairport), Ohio	1825	229,124	61,750	30,000	320,874
Huron river and harbor, Ohio	1826	98,274	25,000	16,000	139,274
Mouroc harbor, Michigan	1835	209,515	11,000	5,000	225,515
Port Clinton harbor, Ohio	1872	40,000	23,000	3,000	66,000
Portland harbor, New York	1836	56,616			56,616
Rocky River harbor, Ohio	1872	35,000	4,000		39,000
Rouge River, Michigan	1888		10,000	10,000	20,000
Sandusky City harbor, Ohio	1826	222,980	97,500	45,000	365,480
Sandusky river, Ohio	1867	30,000	21,500	1,500	53,000
Toledo harbor, Ohio	1866	564,700	452,500	205,000	1,202,200
Vermilion river, Ohio	1836	113,701	11,000	2,000	126,701
Lake Ontario.	1826	2,581,855	895,875	115,000	3,592,730
Black river (Sacketts harbor), New York	1836	42,400			42,400
Charlotte harbor, New York	1828	310,578	133,750	25,000	469,328
Great Sodus bay, New York	1829	343,772	83,875	10,000	437,647
Little Sodus bay, New York	1852	194,442	103,500	13,000	310,942
Oak Orchard harbor, New York	1836	173,000	27,000	5,000	205,000
Olcott harbor, New York	1867	115,000	18,000	30,000	163,000
Oswego harbor, New York	1826	1,264,363	471,250	30,000	1,765,613
Port Ontario harbor, New York	1836	50,000			50,000
Pultneyville harbor, New York	1870	62,000	9,000	2,000	73,000
Sacketts harbor, New York	1826	6,000	9,000		15,000
Sandy creek, New York	1828	300			300
Wilson harbor, New York	1875	20,000	40,500		60,500
St. Lawrence river.	1852	140,006	58,500	53,000	251,506
Grass river, New York	1882		3,000	6,000	9,000
Ogdensburg harbor, New York	1852	110,006	50,000	42,000	202,006
Sister islands, New York	1890			5,000	5,000
Waddington harbor, New York	1873	30,000	5,500		35,500
Niagara river.	1829	52,098	106,500	75,000	233,598
Black Rock harbor, New York	1829	52,098			52,098
Tonawanda harbor, New York	1881		106,500	75,000	181,500
General appropriations.	1836	3,721,562	58,000		3,779,562
General repairs of harbor	1844	270,000			270,000
Surveys	1866	175,000			175,000
Survey steamer	1854	50,000			50,000
Chart-making	1849	130,000			130,000
Hydrographic surveys	1841	2,973,879	58,000		3,031,879
Construction of dredging machines	1836	122,683			122,683

TRANSPORTATION ON LAKE CHAMPLAIN.

The statistics of transportation on Lake Champlain were but partially given in the fourth volume of the Tenth Census, and to have included the statistics of this sheet of water in the report on the Great Lakes and St. Lawrence river for the Eleventh Census would have stood in the way of preparing any comparative statistics for 1880 and 1890. It was therefore decided to make a separate report for Lake Champlain. No record was made either of early commercial operations on Lake Champlain except the statement that 1 of the first 4 steamers built on all the northern lakes was a craft of 298.57 tons, which was constructed on Lake Champlain about the year 1818.

All that it is necessary to say concerning Lake Champlain in the way of physical geography is that it forms the boundary line for its whole length between the states of New York and Vermont, and is 100 miles long from its head of navigation at Whitehall, in Washington county, New York, to its farthest northward extension where it joins the boundary line between Quebec and the states of New York and Vermont. Its area, however, is not as great as its length would seem to indicate, for while its northern part incloses several small islands and is nearly 14 miles wide, more than half of its entire length is not more than 5 miles wide and in some places is less than 1 mile wide. Its greatest ascertained depth is 600 feet, and its surface is 93 feet higher than the level of the sea. Its surplus waters are discharged into the St. Lawrence by the river Richelieu, while on the east it receives the waters of the Missisquoi, the Lamoille, and the Winooski rivers, and Otter creek; from the south those of the Poultney; the contributing streams on the west being the Chazy, the Saranac, and the Au Sable rivers.

It may be added that besides being an important channel of navigation in itself it is connected with the Hudson river by the Champlain canal, which extends from Whitehall to Albany.

PLAN OF THE TABLES.

The plan adopted for the presentation of the statistical results of the investigation by the Eleventh Census into the industry of transportation on Lake Champlain, with some necessary modifications, is the same that was followed in considering the Great Lakes and St. Lawrence river, the numbers and the titles of the 17 tables which have been prepared in this instance being as follows:

Equipment, occupation, and construction:

- Table 1—Equipment in general.
- Table 2—Equipment of fleets, by classes.
- Table 3—Percentages of tonnage and valuation.
- Table 4—Construction, by localities.
- Table 5—Construction, by materials.

Traffic operations:

- Table 6—Freight movement in general.
- Table 7—Freight movement, by ports and commodities.

Earnings and expense accounts:

- Table 8—Financial account in general.
- Table 9—Expense account in detail.
- Table 10—Employés and wages.
- Table 11—Fuel account.

Comparative statistics:

- Table 12—Fleets for the 10 years 1880-1889.
- Table 13—Vessel tonnage for the 10 years 1880-1889.
- Table 14—Tonnage fluctuations for the 10 years 1880-1889.
- Table 15—Shipbuilding for the 10 years 1880-1889 (general).
- Table 16—Shipbuilding for the 10 years 1880-1889 (steamers).

Congressional appropriations:

- Table 17—Appropriations, by localities.

The preceding list shows clearly the scheme on which the tabulation of the Lake Champlain statistics has been carried out, while the following synopsis will more explicitly show what the tables contain:

EQUIPMENT.

Table 1, "Equipment in general", shows the number, tonnage, and value of all the steamers and sailing vessels of over 5 tons burden owned on Lake Champlain in 1889, entered by ports.

Table 2, entitled "Equipment of fleets, by classes", divides the entries of Table 1, separating the total number, tonnage, and value of all steamers and sailing vessels into classes, retaining the separate entries by ports. The steamers are divided into 4 classes, namely, side-wheel passenger steamers, propellers carrying both passengers and freight, tugs, and all other classes, while the sailing vessels are divided into 2 classes, schooners and sloops.

Table 3, entitled "Percentages of tonnage and valuation", gives the number, gross and net tonnage, estimated carrying capacity, valuation, and value per gross ton of all vessels owned on Lake Champlain, the entire lake fleet being divided into 8 classes of occupation, and the percentages of both the tonnage and valuation of each of these classes to the lake totals being given.

CONSTRUCTION.

Table 4, "Construction, by localities", gives the number, tonnage, value, average value per ton, and the average tonnage of all vessels owned on Lake Champlain per material of construction, given by separate entries for each port.

Table 5, entitled "Construction, by materials", gives the number, tonnage, value, average value per ton, and average tonnage of the same craft, but grouped according to material of construction, in contradistinction to the preceding table, in which the grouping is done by ports.

TRAFFIC.

Table 6, "Freight movement in general", contains the receipts, shipments, and excess of one movement over the other, and the total movement of the freight moved on Lake Champlain with the commodities divided into the same comprehensive classes used in the report on the Great Lakes and St. Lawrence river, that is:

Class I—Products of agriculture.

Class II—Products of mines and quarries.

Class III—Other products (such as animal products and lumber).

Class IV—Manufactures, miscellaneous merchandise, and other commodities.

There has been worked out for this table also the percentage of each commodity to the total traffic, whether of receipts, shipments, or combined movements.

Table 7, "Freight movements, by ports and commodities", presents the figures of commodity movement given in the preceding table, allotted to the 8 principal trading points of Lake Champlain.

EARNINGS AND EXPENSE ACCOUNTS.

Table 8, entitled "Financial account in general", is really a balance sheet of the industry of transportation on Lake Champlain, showing as it does the gross earnings, expenses, and net earnings of the operating lake fleet of steamers and sailing vessels, entered for each port of registration.

Table 9, "Expense account in detail", itemizes the sum of gross expenses given in the preceding table under the various heads of port charges, wages, provisions, current repairs, fuel (for the steamers), commissions, insurance, taxes, and office expenses, with two columns for such other running and shore expenses as have not been specified.

Table 10, "Employés and wages", is an analysis of the monthly wages paid on the operating vessels belonging to each port, to all grades of employés from captains to captains' boys, and from first mates to chambermaids, together with the number of persons making up the ordinary crews required as the complement of all operating craft, the number of persons receiving whole or partial employment in the operation of these vessels, the total wages paid out each month, and the average rate of wages paid.

Table 11, entitled "Fuel account" applies, of course, only to operating steamers. These steamers are grouped under the heads of (1) passenger, passenger and freight, and freight steamers, (2) towboats, and (3) miscellaneous. For each of these classes and for each port the number of tons of coal consumed is set down, together with the cost of material.

COMPARATIVE STATISTICS.

Table 12, "Fleets for the 10 years 1880-1889", gives the number and tonnage of all steamers and sailing vessels registered in the customs districts of Lake Champlain for the decade in question; this table as well as the 4 succeeding having been compiled from information furnished this office by the Commissioner of Navigation.

In Table 13 these figures of number and tonnage are made the base for a calculation of averages which are worked out and given for steamers and sailing vessels for the 10 years, while Table 14 gives the fluctuations from the annual average number and the annual average tonnage of all steamers and sailing vessels registered in the customs districts.

Tables 15 and 16 are records of shipbuilding for the decennial period in question, the first giving the number and tonnage of all steamers and sailing vessels built during the 7 years of activity in the decade, and the second furnishing the data for the 4 years in which steamers were built, to show the number and tonnage of all vessels of this kind so built, arranged according to their methods of propulsion—that is, whether propellers or side-wheel steamers.

CONGRESSIONAL APPROPRIATIONS.

Table 17, which concludes the series, gives the amounts appropriated by Congress for the survey, improvement, and maintenance of the harbors of Lake Champlain and of the rivers flowing into it, from the earliest date of appropriation down to and including that of the act of Congress of September, 1890. These sums, so far as the grouping of periods is concerned, are given, first, up to and including 1879; second, from 1880 to 1889, inclusive; third, the appropriations of 1890, and fourth, the total appropriations from first to last.

LOCALITIES.

Before taking up the consideration of what the tables show it will be necessary to explain the various localities mentioned in the different statements. The two places entered on Tables 1, 2, 4, 5, 8, 9, 10, and 11, Burlington, Vermont, and Plattsburg, New York, are the ports of register of the two customs districts of Vermont and Champlain, which latter localities are given in Tables 12, 13, 14, 15, and 16, the former term having been used by the Census agents in collecting their information, and the latter being the term employed in the reports of the Commissioner of Navigation, the two being practically the same. In Table 7 the list of the principal trading points on the lake is given, the traffic returns being a matter entirely outside of custom-house registration, and the list being as follows:

Rouses Point, New York.
Plattsburg, New York.
Ticonderoga, New York.
Whitehall, New York.

Gordons Landing, Vermont.
Burlington, Vermont.
Otter Creek, Vermont.
Swanton, Vermont.

WHAT THE TABLES SHOW.

In the text of the Great Lakes and St. Lawrence river the next step taken after the consideration of "the plan of the tables" was to inquire what the tables show, and no better plan could be adopted for the present article.

VALUES AND TONNAGE.

The information given in Table 1 shows that in the year ended December 31, 1889, the floating equipment of Lake Champlain, exclusive of barges and all other unrigged craft, numbered 47 vessels, having a tonnage of 6,061 tons and a value of \$361,300. So far as numbers go the shipping was about equally distributed both between steamers and sailing vessels, and between the 2 ports of registration of Burlington and Plattsburg, the steamers numbering 22 and the sailing vessels 25. The figures of values and tonnage, however, are quite different, for while the tonnage of the steamers was 4,136 tons, that of the sailing vessels was 1,925; and while the value of the 25 sailing vessels was \$36,800, that of the steamers amounted to \$324,500.

From Tables 2 and 3, which divide the lake fleet into classes indicative of occupation or rig, it is seen that of the 22 steamers 5 were employed as side-wheel passenger carriers, having a gross tonnage of 3,011 tons and a value of \$215,000; 4 were propellers carrying both passengers and freight and had a tonnage of 76 tons and a value of \$10,000; 6 were tugs, with a gross tonnage of 652 tons and a value of \$61,000; there was 1 ferryboat of 5 tons and a value of \$1,500, and 3 pleasure yachts with a tonnage of 74 tons and a value of \$19,000; leaving 3 unclassified steamers of 318 tons aggregate tonnage and \$18,000 value. Of the 25 sailing vessels 22 are seen to be schooners and 3 sloops, the tonnage and value of the schooners being 1,747 tons and \$32,700, and the tonnage and value of the sloops being 178 tons and \$4,100.

The percentages given in Table 3 furnish several items of interest, the principal one, and the only one that need be noted here, being the preponderance in proportionate tonnage and value of the side-wheel passenger steamers, the 5 steamers so employed representing 49.68 or nearly 50 per cent of the total tonnage on the lake, both sailing vessels and steamers, and 59.51 per cent, or more than one-half of the value, of the Lake Champlain fleet.

MATERIALS OF CONSTRUCTION.

Looking at Tables 4 and 5, which show the relative use of iron and wood as materials of construction, it is seen that of the 47 craft reported on only 6 were of iron, their tonnage being 1,404 tons and their value \$109,000, leaving 41 wooden vessels with a tonnage of 4,657 tons and a value of \$252,300. When it comes to a question of averages, however, it is found that the average value per ton of the iron vessels was \$78 as against \$54 per ton of wooden vessels; while the average tonnage of the iron vessels was 234, and that of the wooden vessels 114.

The statistics of freight traffic which are found in Tables 6 and 7 show that during 1889 the total movement by the vessels employed in such operations was 1,760,549 tons; this amount, it should be understood, being the aggregate of the receipts and shipments at the various trading points on the lake—those trading points which were listed in a preceding paragraph.

PORT TRAFFIC AND CARGO TONNAGE.

In considering the traffic on the Great Lakes and St. Lawrence river it was stated to be "a problem in accurate statistics whether the aggregate of receipts and shipments does not show a larger movement than the actual returns of cargo tonnage would do", and a table was prepared (Table 16 in that report) in which there was set down the result of each commodity movement, either receipts or shipments, whichever happened to be the larger, and using this single amount to represent the cargo tonnage. By applying the same rule to the commerce of Lake Champlain it is found that the cargo tonnage amounted to 1,065,368 tons.

PORTS AND COMMODITIES.

In Table 7, which illustrates the freight movement by ports and commodities, the relative importance of these ports is fairly shown. Both as a shipping and receiving point, Whitehall, New York, easily leads, its shipments amounting to 540,000 tons and its receipts to 600,000 tons, a total movement of 1,140,000 tons. Rouses Point, New York, comes next, its receipts being 207,500 tons and its shipments 113,843 tons, making a total of 321,343 tons. The port of third importance is Otter Creek, Vermont, with shipments of 23,000 tons and receipts of 74,000 tons, a total of 97,000 tons. Other than the 3 ports mentioned, Plattsburg, New York, is the only port for which any returns for shipments were made. Table 7 also shows in a fair degree the principal commodities in whose traffic the different ports were engaged, although the reports showed far too much willingness on the part of those making them out to lump the traffic figures under the head of "Unclassified". Taking the 4 principal specified items of coal, iron ore, iron (pig and bloom), and lumber it is found that Plattsburg received the bulk of the coal, 7,875 tons, and that it also shipped iron ore to the amount of 27,135 tons. The business of Rouses Point seems to have principally consisted in the receipts of lumber, its figures standing at 197,500 tons out of a total of 277,223 tons of lumber received at all ports on the lake. Swanton, Vermont, is the only port making returns for the receipt of iron, the amount being 2,125 tons.

The returns of passenger traffic on Lake Champlain were quite unsatisfactory, the alleged reason being that nearly all the passengers were of the excursion class, of whom no record was kept, and indeed the only reports of passenger traffic received were those of 87,139 regular passengers, made by the steamer owners of Burlington, Vermont.

EARNINGS AND EXPENSES.

In Table 8 are given the figures which show how the business of transportation by water paid on Lake Champlain during 1889. The total figures indicate that the gross earnings of the operating mercantile fleet amounted to \$172,311, the expenses to \$141,599, leaving the net earnings at \$30,712. Out of these amounts the steamers made as gross earnings \$160,830 and paid out \$132,380, leaving a balance of \$28,450; while the sailing vessels made as gross earnings \$11,481 and paid out \$9,219, leaving the net earnings at \$2,262.

In Table 9 the total amount of expenses, \$141,599 given in Table 8, is reduced to the principal items making it up. The largest item was wages, that expense amounting to \$42,239; next to which came fuel (for the steamers), \$40,827. Provisions amounted to \$16,028; the current repairs to \$13,465; the office expenses to \$13,445; taxes to \$2,475; insurance to \$2,094; port charges to \$921; commissions to \$60; the balance of \$10,045 being set down to unspecified running and shore expenses.

In much the same way that the grand total of expenses given in Table 8 was divided into a number of items in Table 9, so the total of wages which formed one of the leading items in Table 9 is analyzed in Table 10, which treats of the monthly wages paid to the employés of those vessels which were in operation during 1889. The apparent contradiction between the statements made in Table 1, which sets the floating equipment of Lake Champlain at 47 vessels, and that made in Table 10, which sets the number of chief officers at 30, is due to the fact that in the one case the fleet referred to includes all registered craft whether in operation or not, while in the other case the report was only made for those vessels which were engaged in commercial operations.

Of these employés the steamer list embraces captains, first and second mates, clerks, first and second engineers, wheelmen, lookouts, watchmen, cooks and assistant cooks, seamen, deck hands, firemen, stewards, waiters, boys, and chambermaids; while the sailing vessel list includes captains, first mates, seamen, and cooks.

TRANSPORTATION ON LAKE CHAMPLAIN.

379

The number of each class of employes for the lake fleet is given for both steamers and sailing vessels in a comprehensive total, from which the subjoined summaries, with their calculated averages, are drawn:

STATEMENT SHOWING THE NUMBER OF ALL EMPLOYÉS CONSTITUTING THE ORDINARY CREWS OF THE OPERATING STEAMERS AND SAILING VESSELS ON LAKE CHAMPLAIN, TOGETHER WITH THEIR AGGREGATE AND AVERAGE MONTHLY WAGES.

STEAMERS.				STEAMERS—Continued.			
EMPLOYÉS.	Number employed.	Aggregate of wages for 1 month.	Average monthly wages.	EMPLOYÉS.	Number employed.	Aggregate of wages for 1 month.	Average monthly wages.
Total	173	\$6,769	\$39.13	Firemen	28	873	31.18
Captains	17	1,693	94.29	Stewards	4	248	62.00
First mates	12	555	46.25	Waiters	16	240	15.00
Second mates	3	75	25.00	Boys	1	15	15.00
Clerks	2	110	55.00	Chambermaids	4	60	15.00
First engineers	17	1,030	60.59	SAILING VESSELS.			
Second engineers	12	478	39.83	Total	35	1,002	28.63
Wheelmen	6	253	42.17	Captains	13	580	44.62
Lookouts	1	16	16.00	First mates	5	120	24.00
Watchmen	3	60	20.00	Seamen	11	210	19.09
Cooks	15	439	29.27	Cooks	6	92	15.33
Assistant cooks	2	36	18.00				
Seamen	6	156	26.00				
Deck hands	24	522	21.75				

Should a comparison be made between the wages paid on Lake Champlain and those paid on the Great Lakes and St. Lawrence river it will be seen that the average in every case is considerably lower on the smaller sheet of water, the general average being \$48.79 in the other locality against \$37.36 on Lake Champlain, the detailed averages being as follows:

STATEMENT SHOWING THE AVERAGE MONTHLY WAGES PAID TO ALL CLASSES OF EMPLOYÉS ON THE OPERATING STEAMERS AND SAILING VESSELS ON LAKE CHAMPLAIN, COMPARED WITH THOSE PAID ON THE GREAT LAKES AND ST. LAWRENCE RIVER.

STEAMERS.			STEAMERS—Continued.		
EMPLOYÉS.	Average monthly wages on Lake Champlain.	Average monthly wages on the Great Lakes and St. Lawrence river.	EMPLOYÉS.	Average monthly wages on Lake Champlain.	Average monthly wages on the Great Lakes and St. Lawrence river.
Average monthly wages of all steamer employes.	\$39.13	\$49.73	Firemen	31.18	36.51
Captains	94.29	109.15	Stewards	62.00	59.43
First mates	46.25	71.56	Waiters	15.00	20.44
Second mates	25.00	58.00	Boys	15.00	18.30
Clerks	55.00	60.25	Chambermaids	15.00	22.39
First engineers	60.59	87.34	SAILING VESSELS.		
Second engineers	39.83	62.24	Average monthly wages of all sailing vessel employes.	\$28.63	\$46.70
Wheelmen	42.17	36.01	Captains	44.62	75.18
Lookouts	16.00	33.77	First mates	24.00	52.14
Watchmen	20.00	32.97	Seamen	19.09	38.39
Cooks	29.27	51.54	Cooks	15.33	35.68
Assistant cooks	18.00	20.98			
Seamen	26.00	35.96			
Deck hands	21.75	23.70			

Another interesting total of Table 10 shows that while the number of persons making up the ordinary crews of the operating vessels on Lake Champlain in 1889 was 208, there were 269 persons to whom whole or partial employment was given during the same year, and that the total wages paid per working month was \$7,771.

FUEL ACCOUNT.

In Table 11 there will be found set down the amounts of coal burned by all the operating mercantile steamers during 1889, together with the cost of the fuel. As was seen when considering Table 9 the cost of coal figures as an item of the expense account to the extent of \$40,827, and in the present table it will be found that the amount burned was 10,910 tons; that the passenger and freight steamers burned 5,787 tons, costing \$20,831; that the towboats burned 3,400 tons, costing \$13,922, and that the miscellaneous steam craft consumed 1,723 tons of coal, costing \$6,074.

COMPARATIVE STATISTICS.

As was stated when considering the "Plan of the tables", the comparative statistics found in Tables 12 to 16, inclusive, have been gathered from the reports of the Bureau of Navigation, and before proceeding to consider them it will be well to point out that the difference between the fleet of 1889 reported by the Census Office and that reported by the Commissioner of Navigation, is due to the fact that in the Commissioner's figures there are included certain unriggered craft which have not been given a place in the census report, and to a somewhat different method of classification. The totals of the Commissioner's report are 53 craft, with a tonnage of 6,490.85 tons, made up of 19 steamers, with a tonnage of 4,102.38 tons, and 34 sailing vessels, with a tonnage of 2,388.47 tons, while the total of Table 1 places the Champlain fleet at 47 craft, with a tonnage of 6,061 tons, made up of 22 steamers, with a tonnage of 4,136 tons, and 25 sailing vessels, with a tonnage of 1,925 tons. The yearly details of Table 12 form an interesting record, but the pith of the subject is presented in the recapitulation for the 10 years. No clearer presentation of the gradual change in the class of the craft in use on the lake can be made than is found in this recapitulation, for while the number of the vessels composing the fleet has dropped from 63 in 1880 to 53 in 1889, the tonnage has increased from 5,247.86 to 6,490.85 tons. The explanation of the increased tonnage is found in the statistics of the two columns treating respectively of steamers and sailing vessels, for here it is seen that while the sailing vessels have dropped from 44, with a tonnage of 2,667.62 tons, in 1880 to 34, with a tonnage of 2,388.47 tons, in 1889, the steamers of 1880, which numbered 19, had a tonnage of 2,580.24 tons, while the steamers in 1889, with the same number, 19, had a tonnage of 4,102.38 tons.

CHANGES IN EQUIPMENT.

In Table 13 these changes in number and tonnage are further treated of, the statement showing that in 1880 the average tonnage of the steamers of the Vermont district was 219 tons, while in 1889 it had risen to 345 tons and that the tonnage of the steamers of the Champlain district had risen from 87 tons in 1880 to 100 tons in 1889. Further, that while the average tonnage of the sailing vessels of the Champlain district remained stationary at 64 tons, that of the sailing vessels of the Vermont district had risen from 55 tons to 85 tons; the average tonnage of the combined fleet rising from 71 tons for the Champlain district in 1880 to 75 tons in 1889, and from 103 tons for the Vermont district in 1880 to 208 tons in 1889.

Table 14 is but a continuation, or rather an elaboration of Table 13; presenting as it does the years in which the number and tonnage of the lake fleet ran the highest above and the lowest below the average standard. The great changes, as has been said, are observable in the district of Vermont. Here the annual average number of vessels registered was 23, while the annual average tonnage was 3,416 tons; the year of highest registered number was 1881, when the number was 30, while the year of highest registered tonnage was 1888, when the tonnage was 4,169 tons. Conversely it is seen that the year of lowest registered number was 1889 with 19 registered vessels, while the year of lowest registered tonnage was 1880, when the tonnage was 2,469 tons. The year in which the number of registrations was closest to the average was 1883, when the number was 23, and the year in which the registered tonnage was closest to the average was 1882, when it was 3,402 tons. The fluctuation of number, by the by, was 11 and that of tonnage was 1,700 tons. The annual average number of registrations for the district of Champlain was 36, the fluctuation being 9; while the annual average registered tonnage was 2,645 tons, with a fluctuation of 614 tons.

SHIPBUILDING.

In Table 15, which gives the Commissioner's report of the shipbuilding in the two districts of Champlain and Vermont for the 10 years 1880-1889, additional facts are found explaining the extensive fluctuations in the registration of the Vermont district. From this table the following summary can be collated:

STATEMENT SHOWING THE NUMBER AND TONNAGE OF STEAMERS AND SAILING VESSELS BUILT IN THE TWO DISTRICTS OF CHAMPLAIN AND VERMONT DURING THE 10 YEARS 1880-1889.

DISTRICTS.	STEAMERS.		SAILING VESSELS.		TOTAL.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Both districts.....	6	1,484.20	7	546.66	13	2,030.86
Champlain.....	2	199.93	5	415.30	7	615.23
Vermont.....	4	1,284.27	2	131.36	6	1,415.63

Table 16 is devoted to an analysis of steamer building, with especial reference to the methods of propulsion adopted. The whole number of steamers built in the 10 years was 6, with a tonnage of 1,484.20, and of these, as the recapitulation shows, 4 were propellers, with a tonnage of 243.12 tons, and 2 were side-wheel steamers, with a tonnage of 1,241.08 tons. No stern-wheel steamers were built.

CONGRESSIONAL APPROPRIATIONS.

The earliest appropriation made by the government for the improvement of Lake Champlain was in 1836, when improvements were effected at Burlington, Plattsburg, and Whitehall harbors, and when a general survey of the lake was made, the appropriations for that year amounting to \$620,352. Since that time other localities have been improved and other amounts have been appropriated, the total amount up to and including the act of Congress of September, 1890, being \$1,123,352, as is shown in Table 17, while the subjoined descriptive list shows what has been done under the appropriations:

BURLINGTON HARBOR.—The first project for the improvement of this harbor was probably adopted in 1836. Modifications of the original plan have been made from time to time so as to afford adequate protection to the increasing commercial and shipping interests of the harbor. The improvements now embrace a breakwater of good dimensions and a well protected entrance.

GORDONS LANDING.—The object of the improvement here has been the construction of a breakwater out to the 16-foot curve for the protection of the landing.

GREAT CHAZY RIVER.—The appropriation made by the Congressional act of 1890 was for the purpose of improving this river from the mouth, on Lake Champlain, to Champlain village.

OTTER CREEK.—The project of this improvement adopted in 1872 has been the formation of a channel from Vergennes to Lake Champlain of good navigable width, and with 8 feet of water.

PLATTSBURG HARBOR.—The improvements here consisted of a breakwater running out some 1,200 feet, built for the protection of the steamboat docks.

ROUSES POINT.—Like nearly all the improvements on Lake Champlain, that at this place has consisted of the erection of a curved breakwater 2,000 feet long.

SURVEY.—This survey was made in 1836 and 1838, the principal localities being the Narrows and the channel between North and South Hero islands.

SWANTON HARBOR.—Swanton harbor has been really formed by the construction of protecting breakwaters inclosing a portion of the lake.

TICONDEROGA RIVER.—The project of this improvement, adopted in 1881, was the formation of a channel of navigable width and a least depth of 8 feet at low water between the falls of Ticonderoga village and Lake Champlain, a distance of 2 miles.

WHITEHALL HARBOR.—Little has been done in this vicinity except a survey.

EQUIPMENT, OCCUPATION, AND CONSTRUCTION.

TABLE 1.—EQUIPMENT OF FLEETS IN GENERAL—NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS AND SAILING VESSELS FORMING THE LAKE FLEET, AND CREDITED TO THEIR PORTS OF REGISTRATION.

PORTS.	TOTAL OF ALL CRAFT.			STEAMERS.			SAILING VESSELS.		
	Number.	Gross tonnage.	Valuation.	Number.	Gross tonnage.	Valuation.	Number.	Gross tonnage.	Valuation.
Total for lake	47	6,061	\$361,300	22	4,136	\$324,500	25	1,925	\$36,800
Burlington, Vermont	21	3,880	254,100	12	3,128	240,500	9	752	13,600
Plattsburg, New York	26	2,181	107,200	10	1,008	84,000	16	1,173	23,200

TABLE 2.—EQUIPMENT OF FLEETS BY CLASSES—NUMBER, TONNAGE, AND VALUE OF THE LAKE STEAMERS AND SAILING VESSELS REPORTED ON IN THE PRECEDING TABLE, BUT DIVIDED INTO CLASSES INDICATIVE OF OCCUPATION AND RIG.

PORTS.	TOTAL EQUIPMENT.			STEAMERS.									SAILING VESSELS.								
				Side-wheel passenger.			Propellers carrying both passengers and freight.			Tugs.			All other classes.			Schooners.			Sloops.		
	No.	Gross tonnage.	Valuation.	No.	Gross tonnage.	Valuation.	No.	Gross tonnage.	Valuation.	No.	Gross tonnage.	Valuation.	No.	Gross tonnage.	Valuation.	No.	Gross tonnage.	Valuation.			
Total.....	47	6,061	\$361,300	5	3,011	\$215,000	4	76	\$10,000	6	652	\$61,000	7	397	\$38,500	22	1,747	\$32,700	3	178	\$4,100
Burlington, Vermont.	21	3,880	254,100	5	3,011	215,000	3	38	5,000	.....	.....	.....	4	79	20,500	8	709	12,900	1	43	700
Plattsburg, New York.	26	2,181	107,200	.....	.....	.....	1	38	5,000	6	652	31,000	3	318	18,000	14	1,038	19,800	2	135	3,400

TABLE 3.—PERCENTAGES OF TONNAGE AND VALUATION—NUMBER, GROSS AND NET TONNAGE, ESTIMATED CARRYING CAPACITY, VALUATION, AND VALUE PER GROSS TON OF ALL STEAMERS AND SAILING VESSELS, ARRANGED BY PERCENTAGES OF TONNAGE AND VALUATION APPLIED TO ALL CRAFT, GROUPED BY OCCUPATIONS.

CLASSES OF VESSELS.	Number.	TONNAGE.				VALUATION.		
		Gross.	Percentage of total tonnage on lake.	Net.	Estimated carrying capacity.	Commercial.	Percentage of valuation on lake.	Per ton gross.
All classes	47	6,061	100.00	4,724	7,475	\$361,300	100.00	\$60
Steamers:								
Side-wheel passenger	5	3,011	49.68	2,344	3,449	215,000	59.51	71
Propellers carrying both passengers and freight	4	76	1.25	39	19	10,000	2.77	132
Tugs	6	652	10.76	325	358	61,000	16.88	94
Ferry	1	5	0.08	5	2	1,500	0.42	300
Pleasure yachts	3	74	1.22	46	24	19,000	5.26	257
Unclassified steam vessels	3	318	5.25	179	86	18,000	4.98	57
Sailing vessels:								
Schooners	22	1,747	28.82	1,616	3,220	32,700	9.05	19
Sloops	3	178	2.94	170	323	4,100	1.13	23

TABLE 4.—CONSTRUCTION BY LOCALITIES—MATERIAL, NUMBER, TONNAGE, VALUE IN GENERAL, VALUE PER TON, AND AVERAGE TONNAGE OF ALL THE LAKE FLEET ENTERED FOR EACH PORT.

LAKE AND PORTS.	Material.	Number.	Gross tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Lake Champlain .....	.....	47	6,061	\$361,300	\$60	129
Burlington, Vermont	Iron	1	743	55,000	74	743
Plattsburg, New York	Wood	20	3,137	199,100	63	157
	Iron	5	661	54,000	82	132
	Wood	21	1,520	53,200	35	72

EQUIPMENT, OCCUPATION, AND CONSTRUCTION—Continued.

TABLE 5.—CONSTRUCTION BY MATERIALS—MATERIAL, NUMBER, TONNAGE, GENERAL VALUE AND AVERAGES OF VALUE, AND TONNAGE OF ALL THE LAKE FLEET ENTERED FOR EACH PORT, GROUPED TO SHOW THE TOTALS FOR EACH MATERIAL OF CONSTRUCTION, WHETHER IRON OR WOOD.

LAKE AND PORTS.	Number.	Gross tonnage.	Valuation.	Average valuation per ton.	Average tonnage.
Total Lake Champlain	47	6,061	\$361,300	\$60	129
IRON.					
Lake Champlain	6	1,404	100,000	78	234
Burlington, Vermont	1	743	55,000	74	743
Plattsburg, New York	5	661	54,000	82	132
WOOD.					
Lake Champlain	41	4,657	252,300	54	114
Burlington, Vermont	20	3,137	190,100	63	157
Plattsburg, New York	21	1,520	53,200	35	72

TRAFFIC OPERATIONS.

TABLE 6.—FREIGHT MOVEMENT IN GENERAL—RECEIPTS, SHIPMENTS, TOTAL MOVEMENT, EXCESS OF RECEIPTS OVER SHIPMENTS, AND EXCESS OF SHIPMENTS OVER RECEIPTS OF THE FREIGHT MOVEMENT, CLASSED BY PRINCIPAL PRODUCTS, TOGETHER WITH PERCENTAGES OF TRAFFIC APPLIED TO THE COMMODITIES.

COMMODITIES.	RECEIPTS.		SHIPMENTS.		TOTAL MOVEMENT.		Excess of receipts over shipments. (Tons.)	Excess of shipments over receipts. (Tons.)
	Amount in tons.	Per cent of total traffic.	Amount in tons.	Per cent of total traffic.	Amount in tons.	Per cent of total traffic.		
Total.....	1,047,858	100.00	712,691	100.00	1,760,549	100.00	335,167	
Class I.—Products of agriculture.....								
Wheat.....								
Corn.....								
Other grains.....								
Mill products.....								
All other farm products.....								
Class II.—Products of mines and quarries.....	9,625	0.92	27,135	3.81	36,760	2.09		17,510
Coal.....	9,625	0.92			9,625	0.55	9,625	
Iron ore.....			27,135	3.81	27,135	1.54		27,135
Stone, of all kinds.....								
Salt.....								
Other products of mines and quarries.....								
Class III.—Other products.....	277,223	26.46	8,663	1.21	285,886	16.24	268,560	
Animal products.....								
Lumber.....	277,223	26.46	8,663	1.21	285,886	16.24	268,560	
Class IV.—Manufactures, miscellaneous merchandise, and other commodities.....	761,010	72.62	676,893	94.98	1,437,903	81.67	84,117	

TABLE 7.—FREIGHT MOVEMENT BY PORTS AND COMMODITIES—RECEIPTS, SHIPMENTS, AND TOTAL MOVEMENT OF THE LAKE FREIGHT, GROUPED ACCORDING TO AN EXTENDED LIST OF COMMODITIES, AND ALLOTTED TO THE EIGHT PRINCIPAL PORTS OF TRADE.

LAKES AND PORTS.	Total.	PRODUCTS OF MINES AND QUARRIES.		Lumber.	Manufactures of iron, pig and bloom.	Miscellaneous merchandise and other commodities.
		Coal and coke.	Iron ore.			
Total receipts and shipments.....	1,760,549	9,625	27,135	285,886	2,125	1,435,778
Lake Champlain:						
Rouses Point, New York.....	321,343			197,500		123,843
Gordons Landing, Vermont.....	1,500					1,500
Plattsburg, New York.....	43,848	7,875	27,135	8,663		175
Burlington, Vermont.....	79,823			79,723		100
Otter Creek, Vermont.....	97,000					97,000
Ticonderoga, New York.....	65,000					65,000
Whitehall, New York.....	1,140,000					1,140,000
Swanton, Vermont.....	12,035	1,750			2,125	8,160
Receipts.....	1,047,858	9,625		277,223	2,125	758,865
Rouses Point, New York.....	207,500			197,500		10,000
Gordons Landing, Vermont.....	1,500					1,500
Plattsburg, New York.....	8,000	7,875				125
Burlington, Vermont.....	79,823			79,723		100
Otter Creek, Vermont.....	74,000					74,000
Ticonderoga, New York.....	65,000					65,000
Whitehall, New York.....	600,000					600,000
Swanton, Vermont.....	12,035	1,750			2,125	8,160
Shipments.....	712,691		27,135	8,663		676,893
Rouses Point, New York.....	113,843					113,843
Gordons Landing, Vermont.....						
Plattsburg, New York.....	35,848		27,135	8,663		50
Burlington, Vermont.....						
Otter Creek, Vermont.....	23,000					23,000
Ticonderoga, New York.....						
Whitehall, New York.....	540,000					540,000
Swanton, Vermont.....						

TRANSPORTATION ON LAKE CHAMPLAIN.

385

EARNINGS AND EXPENSE ACCOUNTS.

TABLE 8.—FINANCIAL ACCOUNT IN GENERAL—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL THE OPERATING LAKE CRAFT, GIVEN BY STEAMERS AND SAILING VESSELS, AND ENTERED FOR EACH PORT OF REGISTER.

STEAMERS AND SAILING VESSELS.

LAKES AND PORTS.		Gross earnings.	Expenses.	Net earnings.
Lake Champlain		\$172,311	\$141,599	\$30,712
Burlington, Vermont		93,971	75,302	18,669
Plattsburg, New York		78,340	66,297	12,043
STEAMERS.				
Lake Champlain		160,830	132,380	28,450
Burlington, Vermont		89,860	72,602	17,258
Plattsburg, New York		70,970	59,778	11,192
SAILING VESSELS.				
Lake Champlain		11,481	9,219	2,262
Burlington, Vermont		4,111	2,700	1,411
Plattsburg, New York		7,370	6,519	851

TABLE 9.—EXPENSE ACCOUNT IN DETAIL—ITEMIZED EXPENSE ACCOUNT OF ALL THE OPERATING LAKE CRAFT, GIVEN BY STEAMERS AND SAILING VESSELS, SUBDIVIDED INTO THE VARIOUS ITEMS CONSTITUTING THE RUNNING AND SHORE EXPENSES, AND ENTERED FOR EACH PORT OF REGISTER.

STEAMERS AND SAILING VESSELS.

LAKE AND PORTS.	Total expenses.	Port charges.	Wages.	Provisions.	Current repairs.	Fuel for the steamers.	Other running expenses.	Commission.	Insurance.	Taxes.	Office expenses.	Other shore expenses.
Lake Champlain	\$141,599	\$921	\$42,239	\$16,028	\$13,465	\$40,827	\$8,938	\$60	\$2,094	\$2,475	\$13,445	\$1,107
Burlington, Vermont	75,302	7	25,737	12,283	7,072	20,313	4,158	.....	1,476	1,596	2,000	660
Plattsburg, New York	66,297	914	16,502	3,745	6,393	20,514	4,780	60	618	879	11,445	447
STEAMERS.												
Lake Champlain	132,380	467	36,619	14,524	12,346	40,827	8,651	.....	2,054	2,450	13,445	997
Burlington, Vermont	72,602	7	23,922	11,768	6,868	20,313	4,012	.....	1,436	1,596	2,000	660
Plattsburg, New York	59,778	460	12,697	2,726	5,478	20,514	4,639	.....	618	864	11,445	337
SAILING VESSELS.												
Lake Champlain	9,219	454	5,620	1,504	1,119	.....	287	60	40	25	.....	110
Burlington, Vermont	2,700	.....	1,815	485	204	.....	146	.....	40	10	.....	.....
Plattsburg, New York	6,519	454	3,805	1,019	915	.....	141	60	.....	15	.....	110

STATISTICS OF TRANSPORTATION.

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 10.—EMPLOYÉS AND WAGES—MONTHLY WAGES PAID TO ALL EMPLOYÉS OF THE OPERATING LAKE CRAFT ENTERED FOR STEAMERS AND SAILING VESSELS, AND ALLOTTED TO EACH PORT OF REGISTER.

STEAMERS AND SAILING VESSELS.

LAKE AND PORTS.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGINEERS.		SECOND ENGINEERS.		WHEELMEN.		LOOKOUTS.		WATCHMEN.		COOKS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Lake Champlain	30	\$2,183	17	\$675	3	\$75	2	\$110	17	\$1,030	12	\$478	6	\$253	1	\$16	3	\$60	21	\$531
Burlington, Vermont.	16	1,317	10	410	3	75	2	110	12	780	7	278	5	203	1	16	3	60	14	398
Plattsburg, New York.	14	866	7	265					5	250	5	200	1	50					7	133

LAKE AND PORTS.	ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.		BOYS.		CHAMBER-MAIDS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Lake Champlain	2	\$36	17	\$366	24	\$522	28	\$873	4	\$248	16	\$240	1	\$15	4	\$60	208	269	\$7,771	\$37.36
Burlington, Vermont.	2	36	9	221	19	387	18	569	4	248	16	240	1	15	4	60	146	175	5,423	37.14
Plattsburg, New York.			9	145	5	135	10	304									62	94	2,348	37.87

STEAMERS.

LAKE AND PORTS.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGINEERS.		SECOND ENGINEERS.		WHEELMEN.		LOOKOUTS.		WATCHMEN.		COOKS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Lake Champlain	17	\$1,603	12	\$555	3	\$75	2	\$110	17	\$1,030	12	\$478	6	\$253	1	\$16	3	\$60	15	\$439
Burlington, Vermont.	12	1,157	8	355	3	75	2	110	12	780	7	278	5	203	1	16	3	60	10	332
Plattsburg, New York.	5	446	4	200					5	250	5	200	1	50					5	107

LAKE AND PORTS.	ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.		BOYS.		CHAMBER-MAIDS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate of wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Lake Champlain	2	\$36	6	\$156	24	\$522	28	\$873	4	\$248	16	\$240	1	\$15	4	\$60	173	216	\$6,769	\$39.13
Burlington, Vermont.	2	36	6	156	19	387	18	569	4	248	16	240	1	15	4	60	133	158	5,077	38.17
Plattsburg, New York.					5	135	10	304									40	58	1,692	42.30

TRANSPORTATION ON LAKE CHAMPLAIN.

387

EARNINGS AND EXPENSE ACCOUNTS—Continued.

TABLE 10.—EMPLOYÉS AND WAGES—Continued.

SAILING VESSELS.

LAKE AND PORTS.	CAPTAINS.		FIRST MATES.		SECOND MATES.		CLERKS.		FIRST ENGINEERS.		SECOND ENGINEERS.		WHEELMEN.		LOOKOUTS.		WATCHMEN.		COOKS.	
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.
Lake Champlain	13	\$580	5	\$120															6	\$92
Burlington, Vermont.	4	160	2	55															4	66
Plattsburg, New York.	9	420	3	65															2	26

LAKE AND PORTS.	ASSISTANT COOKS.		SEAMEN.		DECK HANDS.		FIREMEN.		STEWARDS.		WAITERS.		BOYS.		CHAMBER-MAIDS.		Number persons making ordinary crew.	Number persons given employment during year.	Total wages paid per month.	Average rate wages per month.
	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.	No.	Monthly wages.				
Lake Champlain			11	\$210													35	53	\$1,002	\$28.63
Burlington, Vermont.			3	65													13	17	346	26.62
Plattsburg, New York.			8	145													22	36	656	29.82

TABLE 11.—FUEL ACCOUNT—AMOUNT AND VALUE OF THE COAL USED FOR FUEL ON ALL THE OPERATING LAKE STEAMERS, WITH SEPARATE ENTRIES UNDER THE HEADS OF CLASSIFIED OCCUPATIONS.

LAKES AND PORTS.	Tons of coal.	Cost of fuel.	PASSENGER, PASSENGER AND FREIGHT, AND FREIGHT.		TOWBOATS.		MISCELLANEOUS.	
			Coal, in tons.	Value.	Coal, in tons.	Value.	Coal, in tons.	Value.
Lake Champlain	10,910	\$40,827	5,787	\$20,831	3,400	\$13,922	1,723	\$6,074
Burlington, Vermont	5,802	20,313	5,287	18,831			575	1,482
Plattsburg, New York	5,048	20,514	500	2,000	3,400	13,922	1,148	4,592

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS.

TABLE 12.—FLEETS FOR THE TEN YEARS, 1880-1889—NUMBER AND TONNAGE OF ALL STEAMERS AND SAILING VESSELS REGISTERED IN THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889.

CUSTOMS DISTRICTS.	1880						1881					
	TOTAL.		STEAMERS.		SAILING VESSELS.		TOTAL.		STEAMERS.		SAILING VESSELS.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total.....	63	5,247.86	19	2,580.24	44	2,667.62	67	6,028.15	18	2,863.85	49	3,164.30
Vermont, Vermont.....	24	2,468.88	7	1,531.02	17	937.86	30	3,333.40	8	1,901.15	22	1,432.25
Champlain, New York.....	39	2,778.98	12	1,049.22	27	1,729.76	37	2,694.75	10	962.70	27	1,732.05

CUSTOMS DISTRICTS.	1882						1883					
	TOTAL.		STEAMERS.		SAILING VESSELS.		TOTAL.		STEAMERS.		SAILING VESSELS.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total.....	60	5,829.52	19	3,289.20	41	2,540.32	60	6,104.64	19	3,384.95	41	2,719.69
Vermont, Vermont.....	28	3,402.04	11	2,422.03	17	980.01	23	3,458.67	7	2,308.30	16	1,150.37
Champlain, New York.....	32	2,427.48	8	867.17	24	1,560.31	37	2,645.97	12	1,076.65	25	1,569.32

CUSTOMS DISTRICTS.	1884						1885					
	TOTAL.		STEAMERS.		SAILING VESSELS.		TOTAL.		STEAMERS.		SAILING VESSELS.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total.....	60	6,206.98	21	3,493.94	39	2,713.04	61	6,239.26	21	3,493.94	40	2,745.32
Vermont, Vermont.....	21	3,393.78	8	2,318.41	13	1,075.37	21	3,380.12	8	2,318.41	13	1,061.71
Champlain, New York.....	39	2,813.20	13	1,175.53	26	1,637.67	40	2,859.14	13	1,175.53	27	1,683.61

CUSTOMS DISTRICTS.	1886						1887					
	TOTAL.		STEAMERS.		SAILING VESSELS.		TOTAL.		STEAMERS.		SAILING VESSELS.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total.....	62	6,276.96	22	3,531.64	40	2,745.32	52	5,600.31	18	3,188.55	34	2,411.76
Vermont, Vermont.....	21	3,329.59	9	2,333.92	12	995.67	20	3,266.57	9	2,333.92	11	932.65
Champlain, New York.....	41	2,947.37	13	1,197.72	28	1,749.65	32	2,333.74	9	854.63	23	1,479.11

CUSTOMS DISTRICTS.	1888						1889					
	TOTAL.		STEAMERS.		SAILING VESSELS.		TOTAL.		STEAMERS.		SAILING VESSELS.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total.....	54	6,581.44	19	4,102.38	35	2,479.06	53	6,490.85	19	4,102.38	34	2,388.47
Vermont, Vermont.....	22	4,169.12	9	3,105.63	13	1,063.49	19	3,958.23	9	3,105.63	10	852.60
Champlain, New York.....	32	2,412.32	10	996.75	22	1,415.57	34	2,532.62	10	996.75	24	1,535.87

RECAPITULATION.

YEARS.	TOTAL.		STEAMERS.		SAILING VESSELS.		YEARS.	TOTAL.		STEAMERS.		SAILING VESSELS.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.		Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
1880.....	63	5,247.86	19	2,580.24	44	2,667.62	1885.....	61	6,239.26	21	3,493.94	40	2,745.32
1881.....	67	6,028.15	18	2,863.85	49	3,164.30	1886.....	62	6,276.96	22	3,531.64	40	2,745.32
1882.....	60	5,829.52	19	3,289.20	41	2,540.32	1887.....	52	5,600.31	18	3,188.55	34	2,411.76
1883.....	60	6,104.64	19	3,384.95	41	2,719.69	1888.....	54	6,581.44	19	4,102.38	35	2,479.06
1884.....	60	6,206.98	21	3,493.94	39	2,713.04	1889.....	53	6,490.85	19	4,102.38	34	2,388.47

STATISTICS OF TRANSPORTATION.

COMPARATIVE STATISTICS—Continued.

TABLE 14.—TONNAGE FLUCTUATIONS FOR THE 10 YEARS, 1880-1889—AVERAGE ANNUAL NUMBER AND TONNAGE OF ALL STEAMERS AND SAILING VESSELS REGISTERED AT THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION.

STEAMERS.

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
Vermont, Vermont	9	1882	11	1880	7	1886	9	4	2,368	1888	3,106	1880	1,531	1886	2,334	1,575
Champlain, New York	11	1884	13	1882	8	1880	12	5	1,035	1886	1,198	1887	854	1880	1,049	344

SAILING VESSELS.

Vermont, Vermont	14	1881	22	1889	10	1884	13	12	1,048	1881	1,432	1889	852	1885	1,062	580
Champlain, New York	25	1886	28	1888	22	1883	25	6	1,609	1886	1,749	1888	1,415	1884	1,638	334

STEAMERS AND SAILING VESSELS.

Vermont, Vermont	23	1881	30	1889	19	1883	23	11	3,416	1888	4,169	1880	2,469	1882	3,402	1,700
Champlain, New York	36	1886	41	1882	32	1881	37	9	2,645	1886	2,947	1887	2,333	1883	2,646	614

TABLE 15.—SHIPBUILDING DURING THE 10 YEARS, 1880-1889 (GENERAL)—NUMBER AND TONNAGE OF ALL STEAMERS AND SAILING VESSELS BUILT IN THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889.

YEARS.	CUSTOMS DISTRICTS.	STEAMERS.		SAILING VESSELS.		YEARS.	CUSTOMS DISTRICTS.	STEAMERS.		SAILING VESSELS.	
		Num-ber.	Ton-nage.	Num-ber.	Ton-nage.			Num-ber.	Ton-nage.	Num-ber.	Ton-nage.
1880	Champlain, New York	2	199.93	1	20.39	1886	Vermont, Vermont	1	37.70		
1882	Vermont, Vermont	2	503.82			1887	Champlain, New York			1	98.71
1883	Champlain, New York			3	296.20	1888	Vermont, Vermont	1	742.75		
1885	Vermont, Vermont			2	131.36						

RECAPITULATION.

YEARS.	TOTAL.		STEAMERS.		SAILING VESSELS.		YEARS.	TOTAL.		STEAMERS.		SAILING VESSELS.	
	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.		Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.
Total	13	2,030.86	6	1,484.20	7	546.66							
1880	3	220.32	2	199.93	1	20.39	1885	2	131.36			2	131.36
1882	2	503.82	2	503.82			1886	1	37.70	1	37.70		
1883	3	296.20			3	296.20	1887	1	98.71			1	98.71
							1888	1	742.75	1	742.75		

TRANSPORTATION ON LAKE CHAMPLAIN.

391

COMPARATIVE STATISTICS—Continued.

TABLE 16.—SHIPBUILDING DURING THE 10 YEARS, 1880-1889 (STEAMERS)—NUMBER AND TONNAGE OF ALL STEAMERS BUILT IN THE CUSTOMS DISTRICTS OF LAKE CHAMPLAIN FOR THE DECADE 1880-1889, TOGETHER WITH DATA SHOWING THE NUMBER AND TONNAGE OF PROPELLER, SIDE-WHEEL, AND STERN-WHEEL STEAMERS BUILT EACH YEAR IN EACH DISTRICT.

YEARS.	CUSTOMS DISTRICTS.	PROPELLER.		SIDE-WHEEL.		YEARS.	CUSTOMS DISTRICTS.	PROPELLER.		SIDE-WHEEL.	
		Num-ber.	Ton-nage.	Num-ber.	Ton-nage.			Num-ber.	Ton-nage.	Num-ber.	Ton-nage.
1880.....	Champlain, New York	2	199.93			1886.....	Vermont, Vermont.....	1	37.70		
1882.....	Vermont, Vermont	1	5.49	1	498.33	1888.....	Vermont, Vermont			1	742.75

RECAPITULATION.

YEARS.	ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.		YEARS.	ALL STEAMERS.		PROPELLER.		SIDE-WHEEL.	
	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.		Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.
Total	6	1,484.20	4	243.12	2	1,241.08	1882.....	2	503.82	1	5.49	1	498.33
							1886.....	1	37.70	1	37.70		
1880.....	2	199.93	2	199.93			1888.....	1	742.75			1	742.75

CONGRESSIONAL APPROPRIATIONS.

TABLE 17.—APPROPRIATIONS BY LOCALITIES—CONGRESSIONAL APPROPRIATIONS FOR THE SURVEY, IMPROVEMENT, AND MAINTENANCE OF THE HARBORS OF LAKE CHAMPLAIN, AND OF THE RIVERS FLOWING INTO IT, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE, GIVEN BY LOCALITIES AND YEARS.

LOCALITIES.	Date of earliest ap-propria-tion.	Appropriations up to and includ-ing 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Con-gress September, 1890.	Total appropria-tions up to date.
Lake Champlain		\$709,352	\$324,000	\$90,000	\$1,123,352
Burlington, Vermont	1836	426,172	135,750	20,000	581,922
Great Chazy river, New York	1890			10,000	10,000
Gordons landing, Vermont	1880		28,750	6,000	34,750
Otter creek, Vermont	1872	28,000	8,500	5,000	41,500
Plattsburg, New York	1836	140,180	13,000	32,000	185,180
Rouses Point, New York	1884		68,500	15,000	83,500
Survey of Lake Champlain, Vermont	1836	21,000	55,000		76,000
Swanton harbor, Vermont	1873	61,000	9,500		70,500
Ticonderoga river, New York	1881		5,000	2,000	7,000
Whitehall harbor, New York	1836	33,000			33,000

TRANSPORTATION ON THE RIVERS OF THE MISSISSIPPI VALLEY.

TRANSPORTATION ON THE RIVERS OF THE MISSISSIPPI VALLEY.

BY THOMAS J. VIVIAN.

The rivers from which statistics of the transportation of freight and passengers have been secured for this report for the year ended December 30, 1889, are, roundly speaking, the Mississippi, the Missouri, and the Ohio, with their respective tributaries. A single entry has been made of the Red River of the North because of its geographical location. In grouping these streams according to what may be called commercial divisions, the Mississippi has been divided into the Upper and Lower Mississippi, with Saint Louis as the dividing point, and with the Missouri set down as one of the tributaries of the Upper Mississippi, while the Ohio has been separately considered. In the census report for 1880 a somewhat different division was carried out. The Mississippi was similarly divided and the Ohio was also treated separately, but the Missouri and its tributaries were given an individual report, and also included the business of the Red River of the North. These differing divisions are not allowed, however, to stand as difficulties in comparison, because in all the comparative tables which are presented in this report the returns for 1889 are grouped to correspond with the returns for 1880, a statement which will explain certain other differences which appear between the 1889 returns in the comparative tables for 1880 and 1889 and those which present the positive business of the latter year.

The tributaries which are put down in the 1889 tables as belonging to the 3 divisions of the Upper Mississippi, the Lower Mississippi, and the Ohio are those from which the principal reports of transportation have been made. Thus, the rivers which are considered as being the chief commercial tributaries of the Upper Mississippi, and which make up what is styled the Upper Mississippi system, are the Saint Croix, the Chippewa, the Illinois, the Missouri, the Osage, and the Gasconade. Those which make up the Lower Mississippi system are the White, the Arkansas, the Yazoo, the Washita, and the Red; and those which make up the Ohio system are the Allegheny, the Monongahela, the Muskingum, the Little Kanawha, the Great Kanawha, the Big Sandy, the Kentucky, the Green, the Wabash, the Cumberland, and the Tennessee. It is not to be understood from this that these are the only streams on which a transportation business was done in 1889 or from which a report of operations was received, but only as being convenient and comprehensive streams whose names are sufficiently indicative of their district. The report of the Monongahela, for example, includes all that was done on itself, the Cheat, and the Buckhannon; and the report of the Tennessee includes the business done on itself, the Clinch, the Hiwassee, the Caney fork, and the French Broad. The list of these tributaries and subtributaries on which a transportation business was done in 1889 is such a long one that a separate report from each would be too bulky and intricate for present statistical purposes, but those curious in the matter can refer to the tables and diagram printed with that portion of this report which refers to congressional appropriations made for all the navigable streams of the Mississippi valley, and to that portion of this text in which these tables and diagram are explained at length.

RIVERS OF ORIGIN.

Perhaps no better place can be found than this in which to state that while Saint Louis is styled the dividing point between the Upper and Lower Mississippi, the business of that port is allotted as follows: the business of the vessels coming into that port over the Upper Mississippi or the Ohio is credited respectively to those rivers; but all the business of the vessels leaving that port for any river is credited to the Lower Mississippi, as is the business of those vessels trading locally at that port. This is done in pursuance of the plan which has been adopted to credit to every stream wherever possible such business as has its origin thereon, no matter whether the finality of the operation was on that stream or some other; that is, a steamer carrying freight from Pittsburg to Saint Louis is credited as an operating craft on the Ohio, as is of course a steamer trading between Pittsburg and Cincinnati. In the same way the operations of a steamer trading between Burlington and Saint Louis are credited to the Upper Mississippi, while those of a steamer trading between Saint Louis and New Orleans, or between Vicksburg and Natchez, are credited to the Lower Mississippi. This plan has been adopted in order to avoid any duplication of freight movement, a duplication which would surely occur unless some such plan of allotment was made out and adhered to wherever possible, and of which more will be said when treating of the subject of freight movement by commodities.

In grouping the operations of the steamers constituting the fleet of the Mississippi valley it has been thought better to depart from the plan followed in the report of the vessels belonging to coast ports, and to segregate the returns according to the rivers over which their operations were conducted. The distribution of the steamers according to the rivers of operations is as follows:

STEAMERS, BY LOCALITY OF OPERATION.

Red River of the North.....	4	Chippewa.....	1
Saint Croix.....	15	Missouri, Osage, and Gasconade.....	52
Illinois.....	9	Allegheny.....	6
Ohio.....	380	Muskingum.....	7
Monongahela.....	48	Great Kanawha.....	21
Little Kanawha.....	5	Kentucky.....	5
Big Sandy.....	8	Wabash.....	3
Green.....	5	Tennessee.....	32
Cumberland.....	17	White.....	5
Lower Mississippi.....	265	Yazoo.....	11
Arkansas.....	15	Red.....	9
Washita.....	3		
Upper Mississippi.....	188	Total.....	1,114

The distribution of the steamers according to their districts of registration is as follows:

STEAMERS, BY LOCALITY OF REGISTRATION.

New Orleans.....	126	Memphis.....	71
Vicksburg.....	30	Paducah.....	53
Chattanooga.....	22	Saint Louis.....	115
Louisville.....	52	Saint Joseph.....	6
Kansas city.....	16	Burlington.....	43
Omaha.....	13	Minnesota (a).....	46
Dubuque.....	28	Galena.....	27
Lacrosse.....	47	Cincinnati.....	115
Evansville.....	54	Pittsburg.....	152
Wheeling.....	94		
Natchez.....	4	Total.....	1,114

a Includes the ports of Saint Vincent (on the Red River of the North) and Saint Paul.

Having thus given in broad and general outline an indication of the plan of the present report, the next proceeding will be one of review, and will be taken in order to get back to the days of early transportation on the rivers of the Mississippi valley. The material for this review is abundantly found in the text of the Tenth Census report on steam navigation in the United States, and it is from this full presentation of facts that the following condensation has been made:

EARLY NAVIGATION.

Previous to 1778 the Ohio river was not navigated to any extent in the interests of commerce. Troops and war material of the French were moved from point to point on flatboats, and colonists moving to Kentucky would float down to their destination from Fort Pitt (now Pittsburg) on rafts or flats, as the case demanded. In the month of January, 1778, Captain Willing, acting as agent for the Continental army, took 2 large flatboats loaded with produce to New Orleans, where he exchanged it for arms, ammunition, and stores, and he reached Fort Pitt on his return voyage, bringing up his goods and some 50 men besides. From this time the traffic with the Lower Mississippi was kept up and Pittsburg was soon known as an important trading post. Immigration began then to pour into the Ohio valley, and the navigation of the river increased rapidly. Besides the great variety of small craft and rude arks, numerous well-built keel boats, barges, and some seagoing vessels were soon used in conveying the products of the rich region down the Mississippi, where it found a market and was exchanged for merchandise and West India products. It is stated that as late as 1817 the products of the Mississippi valley arrived at New Orleans in 1,500 barges and 500 flats, but no statistics of this commerce were kept at that early date.

In 1811 Fulton and Livingston began the construction of a steamboat at Pittsburg. She was called the Orleans, and was completed that year, making her first voyage down the river and arriving at New Orleans January 10, 1812. It was found a difficult matter to stem the strong current of the lower river, and this was not practically accomplished until about 1814. Within the next 10 years, however, there were built at Pittsburg 30 steamers, measuring 5,698.78 tons; and from 1815, the date of the first steamer at Louisville, up to 1825, 35 steamers, measuring 6,032.26 tons, were launched at that port and vicinity. The first steamer built at Louisville was called the Kentucky. She measured 112 tons, and, according to the record, came out in 1815. The next was the Governor Shelby, of 106.25 tons burden, built in 1817.

From 1817 to 1827 there were built at Cincinnati 52 steamers, measuring 9,306.61 tons. The Vesta, of 203.01 tons, came out in 1817, and was followed the next year by the Eagle, of 118.49 tons; the Heckla, of 124.25 tons; the

Anderson, of 123.17 tons, and the Cincinnati, of 157.38 tons. Besides these 4 steamers built at Cincinnati in 1818, there were 4 at Louisville, measuring 1,106.46 tons; 5 at Pittsburg, measuring 1,226.48 tons, and 1 at Wheeling, of 140.31 tons. In 1819 there were 12 steamers built at Louisville, measuring 2,375.93 tons; 6 at Cincinnati, measuring 1,551.01 tons; 2 at Pittsburg, measuring 501.71 tons; 1 at Wheeling, of 224.51 tons, and 2 at New Orleans, measuring 662.50 tons. The growth of steamer building on the western rivers was remarkably rapid and exceeded that on the Atlantic coast by a large amount in tonnage, for it is found that in 1820, according to these records, there had been built on the rivers 71 steamers, measuring 14,207.53 tons, as against 52 steamers on the Atlantic coast (exclusive of New England coast), measuring 10,564.43 tons. On July 27, 1820, a writer in a Louisville paper enumerated 73 steamers belonging to western navigation, and there were several on the stocks above the Falls of the Ohio and 2 at New Orleans. Estimating the freight actually carried by each boat at 150 tons, and an average of 3 trips annually, he placed the up-steamer freight at 33,300 tons, while the down freight exceeded this figure. The up freight by flatboats and arks would double this amount, so that 100,000 tons about represented the upward movement. Freights ranged from 1.5 to 2 cents per pound from New Orleans to Louisville, and the amount paid on this up freight by steamers was at that date \$1,332,000, taking the last-named rate as the average. Down freights by steam were estimated at \$666,000. The passenger traffic both ways, calculating 10 to a boat, at \$100 up and \$50 down, was placed at \$333,000, so that the total income from passengers and freight on steamers was estimated at \$2,331,000, to which was added \$500,000 for lower river traffic. Some 3 years previous to this date it is stated there were only 30 steamers navigating the western waters. Great expectations were at this early date raised with regard to the commerce of New Orleans, since goods could be placed by it in any part of the Ohio valley for \$2.50 to \$3 per 100 pounds, while it cost nearly twice these sums to freight merchandise through from eastern seaboard cities. That New Orleans did not gain and hold the trade at that time was attributable to the superior capital and commercial character of the eastern merchants and to the dangerous nature of river navigation at that early date. New Orleans was never an extensive building point. In 1817 the Harriet, of 54.46 tons, was built there, and she was followed the next year by the Louisiana, of 102.54 tons. In 1819 New Orleans is credited with building 2 steamers, measuring 662.50 tons, and in 1820 with 6 steamers, measuring 1,034.12 tons; in 1821, 1 steamer, of 46.53 tons, and in 1822, 4 small boats, measuring only 296.67 tons. Pittsburg, Cincinnati, and Louisville were the leading building points.

From 1820 till the breaking out of the civil war, and up to 1865, when rail communication came into competition with the river interests, the progress of steam navigation on the lower river was rapid and extensive; in fact, the palmy days of steamboating on the Lower Mississippi were from 1840 to 1859, when the country had become populous and railroads had not yet come into active competition.

TRADE BEGINNINGS AT SAINT LOUIS.

Saint Louis was selected by Laclede in 1764 as a point possessing peculiar advantages for the fur trade from the confluence of the different rivers in its neighborhood. The statistics for 16 years previous to 1805 show that the average annual value of the furs collected at this place amounted to \$303,750. The population at this date was estimated at 1,500, more than one-half of whom were absent a greater part of the year engaged in trapping. In 1810 the population was 1,600. In 1820 the census showed that the population had increased to 4,598; in 1830 to 5,852, and in 1840 to 16,469. The first steamboat, the Antelope, arrived here in 1817, on her way to explore the great Missouri. In 1845 a committee of 8 citizens prepared a report on the business of Saint Louis, from which it appears that during the year 1845 there were 2,050 steamboat arrivals in the harbor of Saint Louis, with an aggregate tonnage of 358,045 tons, and 346 keel and flat boats. Of these steamers 250 came up from New Orleans; 406 from different ports on the Ohio river, including arrivals from the Cumberland and Tennessee; 298 from ports on the Illinois river; 643 from ports on the Mississippi above the mouth of the Missouri, not including the daily trip of the Alton packet; 249 from ports on the Missouri river, and 204 from other ports, chiefly from Cairo and intermediate ports. At this date, 1845, the tonnage on the rivers, as reported at the different ports, was as follows:

	TONS.
Pittsburg.....	9,233
Wheeling.....	1,340
Pearl river.....	378
New Orleans.....	19,321
Saint Louis.....	16,664
Nashville.....	5,666
Louisville.....	7,114
Cincinnati.....	13,137
Total.....	72,853

ON THE UPPER MISSISSIPPI.

The first steamboat that ascended the Upper Mississippi as far as Fort Snelling, near the Falls of Saint Anthony, was the Virginia, a stern-wheel boat, which arrived at the fort in the early part of May, 1813. From 1823 to 1844 there were but few arrivals each year, sometimes not more than 2 or 3. The steamers running on the

Upper Mississippi at that time were used altogether to transport supplies for the Indian traders and the troops stationed at Fort Snelling. Previous to the arrival of the Virginia keel boats were used for this purpose, and 60 days' time from Saint Louis to the fort was considered a good trip. In 1844 the country had become settled enough to warrant the introduction of a regular line, and the Otter was put upon the route from Saint Louis to Saint Paul. The next year the Lynx and the Argo followed, and in 1847 came the Senator.

In 1851 3 boats went up the Minnesota river, and in 1852 1 ran regularly up that stream during the season. In 1853 the business required an average of 1 per day.

The following table shows the number of arrivals at Saint Paul from 1844 to 1856, including those from above and below, with date of opening and closing of the river:

YEARS.	Date of first arrival.	Number of arrivals.	River closed.
1844.....	April 6	41	November 23
1845.....	do	48	November 26
1846.....	March 31	24	December 5
1847.....	April 7	47	November 29
1848.....	do	63	December 4
1849.....	April 9	35	December 7
1850.....	do	104	December 4
1851.....	April 4	119	November 28
1852.....	April 16	171	November 18
1853.....	April 11	300	November 30
1854.....	April 8	215	November 27
1855.....	April 18	500	November 20
1856.....	do	846	November 10

In 1856 the arrivals at Saint Paul were as follows:

From Saint Louis.....	212
From Fulton city.....	28
From Galena and Duluth.....	228
From Dubuque.....	134
From Minnesota.....	216
From head of Lake Pepin.....	28
Total.....	846

About the same time a thriving trade sprang up between the southern counties of Minnesota and Galena and Dubuque. During a portion of the summer the War Eagle and Tishomingo ran regularly to Winona. Above, on the Upper Mississippi, the 3 steamers, Governor Ramsey, H. M. Rice, and North Star, ran between Saint Anthony and Sauk Rapids.

EARLY DAYS ON THE MISSOURI.

The first steamboat that navigated the Upper Missouri was built at Pittsburg by the American Fur Company in the spring of 1831, and was called the Yellowstone. She was a staunch boat, with side wheels, and had her cabin on the same deck with the boilers. Commanded by Captain Bennett, she made her first trip during the summer of 1831 to Fort Pierre, whence she returned to Saint Louis for the winter. During the summer of 1832 she made her second trip, reaching Fort Union, near the mouth of the Yellowstone river. The second boat was built by the American Fur Company and called the Assiniboine. She made her first trip in 1833, ascending to Fort Union, a few miles above the mouth of the Yellowstone river, whence she returned safely to Saint Louis. This boat made another trip in 1834, and in 1835 ascended as far as the mouth of Poplar creek, some 60 miles above the mouth of the Yellowstone. She was caught by the fast-falling water and was obliged to winter there. The following spring she took on a very valuable cargo of furs and started for Saint Louis. When she had reached Heart river, near where Fort Lincoln is situated, she was burned with her entire cargo.

For the 12 or 15 years following the American Fur Company did all of the steamboating that was done above Kanesville (now Council Bluffs), Iowa, making such improvements on their boats as experience suggested. Many efforts were made to ascend the Missouri river higher than Poplar creek, but it seems that none were successful. During the summer of 1850 the El Paso succeeded in reaching the mouth of Milk river, but during all this time Fort Union was really the head of navigation. The steamboats running farther up the Missouri than Kanesville were owned and operated by and for the American Fur Company only. Western Iowa began settling up at about this date, preparing the way for general commerce. In 1856 several boats besides those owned by the fur company ran up as far as the then new settlement of Sioux city, loaded with supplies suited to the wants of the country. This trade grew rapidly, until in the spring of 1857 boats ran from Saint Louis to Sioux city weekly. Above Sioux city there was little change, the fur company sending up each season from 2 to 4 boats as far as the mouth of the

Yellowstone river. In 1859 they built a small boat called the Chippewa. She was the first stern-wheel boat that navigated the Upper Missouri, and was better adapted to this river than any of her predecessors. She was accompanied by the Spread Eagle as far as Fort Union, and from thence pushed forward alone, passing Milk river, the highest point reached by the El Paso in 1850, and reached Fort McKenzie June 17, 1859. From this place, only a few miles below Fort Benton, she turned back. The Chippewa reached Fort Benton on her trip in 1860, being the first steamboat that ever reached the present head of navigation. About this time there was much interest exhibited in the Montana gold mines, which started an emigration in that direction. Boats were at once fitted out, loaded with provisions, tools, clothing, and such supplies as promised rich profits, and sent to Fort Benton. During the first years of the war the government established a number of posts on the Missouri above Fort Randall. This also increased the demand for boats, so that in 1864 there were at one time a dozen boats above Sioux city. In 1868 the first railroad reached Sioux city. Before the railroad had its warehouses built a company was formed which owned and operated the North Alabama, the Fannie Barker, the Deer Lodge, the Huntsville, the Tennessee, and other boats between Sioux city and Fort Benton. This line carried private, military, and Indian freight, and was quite successful. They operated in connection with the Sioux City and Pacific railroad. In 1870 they sold their shore property to the Peck line, operating on the river at that time. The Kountz line had also 4 boats on the river, and the Coulson line was organized about this time. The Fort Benton Transportation Company was organized in 1875.

PLAN OF THE TABLES.

Reverting to the present work, it will be found that the statistical results of the investigation by the Eleventh Census are embodied in 31 tables. The first 19 of these deal with the positive figures for 1889; the next 9 present the comparative figures for the 2 years of 1880 and 1889; 2 tables deal with the congressional appropriations made for the survey, improvement, and maintenance of the various water ways of the Mississippi valley, while the final table deals with the number of navigable miles on the rivers of the Mississippi valley. In addition to this division of the tables into 3 great groups, the positive statistics in the first 19 tables have been divided into 5 subgroups, entitled "Equipment", "Income and expenditure", "Employés", "Traffic", and "Classified details". Set down in index form the tables are as follows:

EQUIPMENT.

- Table 1. Equipment in general.
- Table 2. Equipment by classes.
- Table 3. Equipment by tonnage.

INCOME AND EXPENDITURE.

- Table 4. Expense account in general.
- Table 5. Expense account by classes.

EMPLOYÉS.

- Table 6. Employés by classes.

TRAFFIC.

- Table 7. Passenger and freight movement in general.
- Table 8. Freight movement by classes.
- Table 9. Commodities moved by freight steamers.
- Table 10. Commodities moved on barges.
- Table 11. Commodities moved by ferry steamers.
- Table 12. Recapitulation of commodities moved.

CLASSIFIED DETAILS.

- Table 13. Passenger and freight steamers.
- Table 14. Towboats.
- Table 15. Ferries.
- Table 16. Harbor craft.

CLASSIFIED DETAILS—Continued.

- Table 17. Miscellaneous.
- Table 18. No traffic report.
- Table 19. Résumé.

COMPARATIVE STATISTICS.

- Table 20. Fleets in 1880 and 1889.
- Table 21. Steamers by classes in 1880 and 1889.
- Table 22. Expense accounts in 1880 and 1889.
- Table 23. Wage details in 1880 and 1889.
- Table 24. Traffic in 1880 and 1889.
- Table 25. Documented fleets for 10 years, 1880 to 1889, inclusive.
- Table 26. Aggregate and average tonnages for same period.
- Table 27. Annual fluctuations of registered tonnage for same period.
- Table 28. Shipbuilding for same period.

CONGRESSIONAL APPROPRIATIONS.

- Table 29. Appropriations for rivers by detailed localities.
- Table 30. Appropriations by totals.

NAVIGABLE WATERS.

- Table 31. Navigable miles of the Mississippi fluvial system.

THE EQUIPMENT TABLES.

The first table of equipment (Table 1) shows the number, tonnage, and value of all steamers and unrigged craft of over 5 tons burden owned on the rivers of the Mississippi valley in 1889. This simply deals with the totals, the only divisions made being into steamers and unrigged; and the only distribution effected being that of the steamers and unrigged to each of the rivers upon which they plied, with totals for the Upper Mississippi system, the Ohio system, the Lower Mississippi system, the Red River of the North, and a grand total for the valley.

Table 2, entitled "Equipment by classes", divides up the entries of the previous table, separating the total number of steamers plying on each river into the 5 operating classes or occupations of passenger and freight, towing, ferry, harbor, and miscellaneous, and giving to each class its tonnage and value. The unrigged is also

added to this list of classes, and a supplementary division is made of those steamers from which no traffic report was received. By this allotment the number, tonnage, and value of each class of craft operating on each river may be readily seen.

In Table 3 a new division is made of the steamers documented in the ports of the Mississippi valley in 1889. Instead of dividing them according to their respective occupations, as was done in Table 2, this table divides them according to groups of tonnage, and instead of allotting them to the different rivers on which they plied they are allotted to the various ports of entry. The material for this table was gathered from the report of the commissioner of navigation for 1889, and it is owing to this circumstance that the small discrepancy appears between the tonnage as made up from the census schedules and that gathered from the commissioner of navigation's report. In the case of the census schedules the tonnage of the 1,114 steamers amounted to 210,771.89 tons, while in the case of the commissioner's figures the 1,114 steamers had a tonnage of 209,826.07 tons, a difference of 945.82 tons, which is easily accounted for by the fact that gross tonnage is always a more or less elastic quantity and that it would be impossible to secure absolute identity of tonnage in the reports of two bureaus.

INCOME AND EXPENDITURE.

There are, it will be seen, 2 tables giving the statistics of income and expenditure. The first (Table 4) gives the total gross earnings, expenses, and net earnings of all the fleets operating on the rivers of the Mississippi valley and fluvial systems according to the same plan as was adopted in the general table of equipment (Table 1), while Table 5 divides up these gross earnings, expenses, and net earnings and distributes these totals among the various fleets divided into occupations according to the same plan pursued in the distribution of the fleets in the second table of equipment (Table 2).

One of the chief items making up the total of expenses incurred in the operation of the Mississippi valley fleet was that of wages, and this subject is treated of in Table 6. In this table there are shown the total wages paid during the year to all the officers and men making up the ordinary crews of each class of steamers, together with the total number of men required to work and officer the 975 operating steamers. Of course these figures are not to be understood as indicating the total number of men to whom whole or partial employment was given during the year. That number was necessarily a much larger one, but the difficulties experienced in securing anything like a correct report of this total number were found to be so great that the tabulation of the statistics regarding so nomadic a class of workers as many of the employés of the river steamboats are had to be abandoned. The average wages per man per year are not given in this table, but will be found in Table 23, which deals with the comparative wage statistics of the years 1880 and 1889.

THE TRAFFIC TABLES.

The presentation of the statistics of traffic is made in 6 tables, numbered in running order from 7 to 12, inclusive.

Table 7 shows in a general and comprehensive fashion the number of passengers carried and the tons of freight moved by all the operating craft of the Mississippi valley allotted to the different rivers and systems, the only attempt at detail being that of separating the passengers under the heads of "Regular and excursion" and "Ferry".

A corresponding division of the totals of freight moved will be found in Table 8, wherein the total amounts of freight moved on each river are set down under the respective heads of "Freight carried" and "Freight towed", whether by passenger and freight steamers, ferries, or towboats.

The 4 succeeding tables (9, 10, 11, and 12) carry out this work of division in a still greater degree. In Tables 9, 10, and 11 the freight carried by the passenger and freight steamers, by ferries, and on unriggered is given by commodities, the division of these being carried out to as great an extent as the returns of the schedules would permit. They give about 30 items of commodity, about equally divided between the products of agriculture, of mines, and of merchandise.

In Table 12 all these commodities are gathered under their respective heads and given in one table, thus showing the quantity of each commodity moved by all the operating craft of the Mississippi valley during 1889.

CLASSIFIED DETAILS.

The 6 succeeding tables (13, 14, 15, 16, 17, and 18) form another group, which may be entitled that of "classified details". In these tables the information which had been furnished in the various tables of equipment, income and expenditure, employés, and traffic is gathered together under the 6 titles of "Passenger and freight steamers", "Towboats", "Ferryboats", "Harbor boats", "Miscellaneous craft", and "No traffic report", with a separate table for each class of occupation.

In Table 19 all of the preceding returns are gathered together and a résumé is furnished, in which all the statistics of the various classes of vessels are grouped for each river of the valley. By this method the water transportation in any of its branches, on any river of the Mississippi valley, can be seen at a glance.

WHAT THE TABLES SHOW.

Having considered the plan of the tables, it is next in order to consider what these tables show.

Taking up first the 3 equipment tables in their order, it is seen, from the totaled figures for the different divisions of the fluvial system of the Mississippi valley, given in Table 1, that in 1889 there were owned on those rivers 1,114 steamers, having a tonnage of 210,771.89 and a value of \$10,539,251; 6,339 unrigged craft, with a tonnage of 3,182,608 and a value of \$4,795,754; a grand total of 7,453 craft, having a tonnage of 3,393,379.89 and a value of \$15,335,005. The figures of total tonnage appear enormous when placed in comparison with those of other sections of the country, but it will be observed that 93.79 per cent of the valley total is tonnage of low grade. Dividing this valley total into system totals, it is found that in 1889, on the Upper Mississippi and its tributaries, including the Red River of the North, there were 269 steamers, with a tonnage of 33,398.47 and a value of \$1,895,269; 359 unrigged, with a tonnage of 191,555 and a value of \$266,923; an aggregate of 628 craft, with a tonnage of 224,953.47 and a value of \$2,162,192. On the Ohio river and its tributaries there were 537 steamers, of a tonnage of 107,195.83 and a value of \$5,192,710; 5,708 unrigged craft, of a tonnage of 2,813,273 and a value of \$3,503,631, making a total of 6,245 craft, of a tonnage of 2,920,468.83 and a value of \$8,696,341. On the Lower Mississippi there were 308 steamers, with a tonnage of 70,177.59 and a value of \$3,451,272; 272 unrigged craft, of a tonnage of 177,780 and a value of \$1,025,200, making an aggregate of 580 craft, of a tonnage of 247,957.59 and a value of \$4,476,472.

The preceding figures relate to all steamers and unrigged craft owned on the rivers of the Mississippi valley, whether in operation or not. Between these figures and the number of those vessels in operation there is a discrepancy, which is attributable to the fact that there were many steamers which were not in operation during 1889, or from which no traffic report could be secured. This unremunerative stock (unremunerative so far as the purposes of the present report are concerned) is given in Table 2 (and Table 18) under the class title of "no traffic report", and will be found to number 139 for the whole valley, with a tonnage of 17,387.07 and a value of \$904,143. Of this number 33 steamers were owned on the Upper Mississippi system and Red River of the North, representing a tonnage of 4,435.17 and a value of \$214,719; 59 belonged to the Ohio system, with a tonnage of 7,874.81 and a value of \$401,802, and 47 were owned on the Lower Mississippi system, with a tonnage of 5,077.09 and a value of \$287,622. This leaves an active balance of 975 steamers, with a tonnage of 193,384.82 and a value of \$9,635,108, divided in their occupations, as will be seen in Table 2, and shown by class tables as follows:

EQUIPMENT OF CLASSES.

TABLE 13.—In the actual transportation of passengers and freight there were 320 steamers, with a tonnage of 95,215.26 and a value of \$3,661,475, of which number 48 were employed on the Upper Mississippi and tributaries and Red River of the North, with a tonnage of 10,414.73 and a value of \$443,700; 161 were employed on the Ohio, representing a tonnage of 45,513.50 and a value of \$1,752,075, and 111 were employed on the Lower Mississippi system, with a tonnage of 39,287.03 and a value of \$1,465,700.

TABLE 14.—In the towing of freight on all classes of unrigged craft and on rafts there were 290 steamers employed, with a tonnage of 53,875.55 and a value of \$3,422,983, of which 98 were employed on the Upper Mississippi system, with a tonnage of 11,547.70 and a value of \$759,000; 157 were employed on the Ohio system, with a tonnage of 32,662.67 and a value of \$2,035,383, and 35 were employed on the Lower Mississippi system, with a tonnage of 9,665.18 and a value of \$627,600.

TABLE 15.—Engaged in the ferry business were 163 steamers, having a tonnage of 18,593.40 and a value of \$1,056,250, of which number 51 were employed on the Upper Mississippi system, with a tonnage of 3,905.31 and a value of \$268,300; 61 were employed on the Ohio, with a tonnage of 11,543.53 and a value of \$376,250, and 51 were employed on the Lower Mississippi system, with a tonnage of 3,144.56 and a value of \$411,700.

TABLE 16.—In local or harbor towing and in such pursuits as would necessarily fall to floating channel property there were 141 steamers, with a tonnage of 18,981.96 and a value of \$1,028,350. Of this number 29 belonged to the ports and harbors of the Upper Mississippi system, with a tonnage of 1,095.81 and a value of \$69,750; 59 belonged to the ports and harbors of the Ohio system, with a tonnage of 5,482.35 and a value of \$370,300, and 53 belonged to the ports and harbors of the Lower Mississippi system, with a tonnage of 12,403.80 and a value of \$588,300.

TABLE 17.—The balance has been grouped under the head of "Miscellaneous", and includes pleasure boats, private excursion boats, traveling shows, and all such craft as can not be said to have any net earnings from the industry of water transportation, of which class there were 61 steamers in operation in the valley, having a tonnage of 6,718.65 and a value of \$466,050. Of this number 10 were employed on the Upper Mississippi system, with a tonnage of 1,999.75 and a value of \$139,800; 40 were employed on the Ohio system, having a tonnage of 4,118.97 and a value of \$255,900, and 11 were employed on the Lower Mississippi, with a tonnage of 599.93 and a value of \$70,350.

EQUIPMENT, BY DISTRICTS OF REGISTRATION.

The third table of equipment (Table 3) furnishes a decided amplification of the list of steamers distributed according to their districts of registration, which was given in the early part of this text. That list was made out irrespective of the order of importance of each district, but on taking up this idea it is found that, so far as the number of documented steamers go, the districts stand as follows in the order of their importance:

DISTRICTS OF REGISTRATION.	Rank in importance of registration, by number.	Number of registered steamers.	DISTRICTS OF REGISTRATION.	Rank in importance of registration, by number.	Number of registered steamers.
Pittsburg, Pennsylvania.....	1	152	Minnesota.....	10	46
New Orleans, Louisiana.....	2	126	Burlington, Iowa.....	11	43
Cincinnati, Ohio.....	3	115	Vicksburg, Mississippi.....	12	30
Saint Louis, Missouri.....			Dubuque, Iowa.....	13	28
Wheeling, West Virginia.....	4	94	Galena, Illinois.....	14	27
Memphis, Tennessee.....	5	71	Chattanooga, Tennessee.....	15	22
Evansville, Indiana.....	6	54	Kansas city, Missouri.....	16	16
Paducah, Kentucky.....	7	53	Omaha, Nebraska.....	17	13
Louisville, Kentucky.....	8	52	Saint Joseph, Missouri.....	18	6
Lacrosse, Wisconsin.....	9	47	Natchez, Mississippi.....	19	4

When, however, the relative importance of the districts as shown by registered tonnage is considered, the order, as will be seen by the following statement, is somewhat changed:

DISTRICTS OF REGISTRATION.	Rank in importance of registration, by tonnage.	Tonnage of registered steamers.	DISTRICTS OF REGISTRATION.	Rank in importance of registration, by tonnage.	Tonnage of registered steamers.
Saint Louis, Missouri.....	1	42,827.04	Minnesota.....	11	5,213.56
Pittsburg, Pennsylvania.....	2	32,263.23	Burlington, Iowa.....	12	5,050.39
Cincinnati, Ohio.....	3	31,406.87	Chattanooga, Tennessee.....	13	3,968.09
New Orleans, Louisiana.....	4	19,248.58	Lacrosse, Wisconsin.....	14	3,884.03
Memphis, Tennessee.....	5	12,113.76	Galena, Illinois.....	15	3,129.60
Louisville, Kentucky.....	6	11,937.92	Vicksburg, Mississippi.....	16	2,875.99
Wheeling, West Virginia.....	7	9,768.97	Kansas city, Missouri.....	17	1,781.35
Paducah, Kentucky.....	8	8,781.24	Omaha, Nebraska.....	18	1,329.55
Evansville, Indiana.....	9	6,950.76	Natchez, Mississippi.....	19	592.35
Dubuque, Iowa.....	10	6,355.26	Saint Joseph, Missouri.....	20	340.53

STATUS OF THE DISTRICTS.

In the number of registered craft Pittsburg easily leads, while Saint Louis stands third, but in the amount of registered tonnage Saint Louis rises to first place, while Pittsburg takes the second. On the other hand, while Wheeling stands fourth in point of number it is seventh in point of registration, and Lacrosse, from being ninth in point of number, sinks to fourteenth in point of registered tonnage. In both number and tonnage, however, Saint Louis, Pittsburg, Cincinnati, New Orleans, Wheeling, Memphis, Evansville, Louisville, and Paducah stand easily as the first 9 districts, while the relative positions of the other districts do not vary very materially.

Looking from localities of registration to the analysis of tonnage (Table 3), it is interesting to note that while the small tonnage steamers, that is, from 5 to 50 tons, number 270, what may be called the medium tonnage steamers, that is, from 100 to 200 tons, are even greater in number, standing at 295. It is also interesting to note how close the number of the 300 to 400 ton steamers stands to the 500 to 1,000 ton class, being 74 to 71, while the number of the 400 to 500 ton class only reaches 28. The number (23) of the 1,000 to 2,500 ton class is rather surprising, but one can not fail to remark that the first 3 tonnage classes, the 5 to 50 tons, the 50 to 100 tons, and the 100 to 200 tons, are undoubtedly the favorite classes of river steamers, their aggregate number standing at 826 out of a total of 1,114, or 74.15 per cent of the whole number, and representing an aggregate tonnage of 69,879.60 out of a total tonnage of 209,826.07, or 33.30 per cent of the whole amount. Equally interesting deductions may be drawn from the returns of the different districts. These returns of equipment by tonnage classes were not kept in the previous census year, so that it is not possible to make any class comparisons, but the question of average tonnage will be considered when the group of comparative statistics is reached.

EARNINGS AND EXPENSES.

Tables 4 and 5 may be accepted as showing, both by localized totals and by classified details, how the business of water transportation on the rivers of the Mississippi valley paid in 1889. From Table 4 it will be gathered that the gross earnings of the entire operating fleet amounted to \$16,337,533, the expenses to \$12,600,342, and the net earnings to \$3,737,191. From the figures given when making the summary of equipments in Table 1 it was found that the total value of the entire fleet of vessels of all classes in the Mississippi valley, whether in operation or not, amounted to \$15,335,005. In all probability this estimated commercial valuation was short of the actual figures by some 30 per cent, which would raise the real value of the Mississippi valley fleet to \$21,907,150. When localized it is found that of the total figures the operating fleet of the Upper Mississippi system and the Red River of the North took in as gross earnings \$2,618,146, paid out \$1,855,063, and secured net earnings of \$763,083. The gross earnings of the operating fleet of the Ohio system were \$6,702,013, their expenses \$5,270,567, and their net earnings \$1,431,446, while the gross earnings of the operating fleet of the Lower Mississippi system were \$7,017,374, their expenses \$5,474,712, and their net earnings \$1,542,662.

EXPENSE ACCOUNTS OF CLASSES.

So far as the pecuniary results of the different classes go, it is found from Table 13 that the most important are the 320 passenger and freight steamers, which, in 1889, made as gross earnings \$7,651,248, paid out \$6,580,356, leaving net earnings amounting to \$1,070,892. The bulk of these sums was earned and paid out on the Lower Mississippi, where the gross earnings amounted to \$3,040,334, the expenses to \$2,742,406, and the net earnings to \$297,928. Next in importance comes the Ohio, where the gross earnings were \$2,168,215, but as the expenses stand only at \$1,850,248, leaving the net earnings \$317,967, it will be seen that the passenger and freight steamers paid better on this stream than on the Lower Mississippi. The other streams stand as follows: the Upper Mississippi, the Tennessee, and the Red, all with gross earnings over \$300,000; the Cumberland, the Yazoo, the Illinois, the Monongahela, the Missouri system, the Washita, and the White, having gross earnings over \$100,000, and the Muskingum, the Great Kanawha, the Kentucky, the Wabash, the Green, the Red River of the North, and the Allegheny stand in the order given so far as their earnings are concerned.

Though the gross earnings of the towboats (Table 14) were considerably less than those of the passenger and freight steamers, standing as they do at \$6,036,748 against \$7,651,248, the cost of conducting this class of craft was considerably less. As the expenses stand at \$4,098,723 for the towboats and \$6,580,356 for the passenger and freight steamers, this means net earnings for the towboats of \$1,938,025 against \$1,070,892 for the passenger and freight steamers. It is very interesting to notice here that on the Ohio the earnings of both classes are almost identically the same, for while the gross earnings of the passenger and freight steamers on that river amounted to \$2,168,215, the gross earnings of the towboats amounted to \$2,168,020. It will be observed, however, that the expenses of running the towboats, though numbering 114 as against 85 passenger and freight steamers, stand only at \$1,657,136 as against \$1,850,248. The net earnings of the towboats therefore reached \$510,884 as against \$317,967 for the passenger and freight steamers. It is also interesting to notice the importance which towing has assumed on the rivers forming the Upper Mississippi system. The boats engaged exclusively in this business numbered 98, the gross earnings of that fleet reaching to \$1,485,048, out of which were paid \$956,143 expenses, leaving \$528,905 net earnings. A close similarity between the number of vessels engaged as passenger and freight steamers and as towboats on the Ohio system and the strongly marked variations of tonnage and value are all interesting subjects for comparative data.

The expense account of the ferry fleet (Table 15) shows that the whole 163 steamers belonging to the Mississippi valley earned \$1,196,817, out of which was paid \$818,634, leaving \$378,183 net earnings. These figures, however, are not as satisfactory as they might be, and it must be understood that they are only partial reports, the owners of the large ferry lines claiming that their complete returns were made when reporting on the railroads of which they form a transfer link.

The earnings of the harbor boats (Table 16) amounted to \$1,291,080, the expenses to \$940,989, leaving \$350,091 for net earnings. These were chiefly employed at the ports of Saint Louis, Pittsburg, New Orleans, Cincinnati, and Memphis, the others being engaged at various points on the Saint Croix, Great Kanawha, and the Big Sandy. So far as the different systems are concerned the harbor boats of the Upper Mississippi made as gross earnings \$115,249, incurred \$80,675 expenses, leaving \$34,574 net profits; those of the Ohio system ports made as gross earnings \$374,352, paid out \$286,095 expenses, and counted on \$88,257 net earnings, and those of the Lower Mississippi ports made as gross earnings \$801,479, paid out \$574,219 for expenses, and profited to the extent of \$227,260 net earnings.

The gross earnings of the miscellaneous class (Table 17), \$161,640, have been balanced with a similar amount, because these earnings can not be said to have been made in the prosecution of the business of water transportation, and the balance has been struck in order that there might be no difference in the total net earnings of all the craft operating in the Mississippi valley.

CREWS AND WAGES.

One of the chief items accepted as indicating the importance of an industry is that of wages, and, in this particular, water transportation on the Mississippi valley, as is shown in Table 6, may certainly be regarded as an industry of much consequence. During 1889 the total of the ordinary crews of the operating craft numbered 15,996 men, although in the change of employes very many more men found whole or partial employment during the year. At the risk of repetition, it must be stated that this number must be taken as representing the total of the captains, engineers, deck hands, roustabouts, etc., who were required to man and run the 975 operating craft during the year, and to this complement of necessary men there was paid out \$5,338,862. The largest number of these men were employed on the Ohio system, where to 7,663 men, making the complementary crews of 478 operating vessels, there was paid \$2,545,625. The Lower Mississippi system stands next, where to 5,345 men, making up the complementary crews of 261 steamers, there was paid out \$1,948,541; the number of men on the Upper Mississippi system standing at 2,943 as the complementary crews of 233 steamers, the amount paid in wages being \$843,019. In the relation of craft and men (shown in Tables 13, 14, 15, 16, and 17) some peculiar facts make themselves apparent. On the 320 passenger and freight steamers the crew total amounted to 9,101 men, to whom was paid \$2,603,031, or an average of \$286.02 per man, while on the 290 towing steamers the crew total amounted only to 4,742 men, to whom was paid \$1,787,995, or an average of \$377.06 per man, which means that on the towboats the wages paid was on the average \$91.04 per man higher than it was for the average passenger and freight steamer employe. The wages paid on the 163 ferryboats is reported at \$456,676, paid to 893 men, while to the 1,016 men employed on the 141 harbor boats no less than \$409,267 was paid. The reports for the 61 miscellaneous craft show that 244 men were employed, to whom was paid \$81,893.

STATISTICS OF TRAFFIC.

Of the 5 operating classes only 3 can be said to be engaged in traffic, these being passenger and freight steamers, ferry steamers, and towboats. As is shown by Table 7, 29,405,046 tons of freight were moved by these 3 classes jointly on all the rivers of the Mississippi valley, of which amount 6,961,977 tons were moved on the Upper Mississippi system and Red River of the North, 16,041,866 tons on the Ohio, and 6,401,203 tons on the Lower Mississippi system.

The great bulk of this freight was towed, the total towed freight (see Table 8) amounting to 19,059,542 tons, of which 4,810,353 tons were towed on the Upper Mississippi system and Red River of the North, 12,235,201 tons on the Ohio system, and 2,013,988 tons on the Lower Mississippi system.

Nearly all of these 19,059,542 tons of towed freight were moved by the 290 towboats of which the equipment figures have been given. The exact figures of the amount of freight moved by the fleet of towboats are 17,133,342 tons, of which 4,762,024 tons were moved by those of the Upper Mississippi system, 11,149,972 tons by towboats of the Ohio system, and 1,221,346 tons by the Lower Mississippi system fleet of towboats.

The balance of the towed freight, 1,926,200 tons, was towed by the passenger and freight boats on the Illinois, Allegheny, Big Sandy, Green, Wabash, White, Arkansas, Yazoo, Washita, Red, and Red River of the North. By systems, the amounts of freight so towed were 44,692 tons on the Upper Mississippi system, 1,085,229 on the Ohio system, 792,642 on the Lower Mississippi system, and 3,637 on the Red River of the North.

The amount of freight carried on the 320 passenger and freight steamers amounted to 9,233,598 tons for the valley, of which 1,453,732 tons were carried on the Upper Mississippi system, 3,561,767 tons on the Ohio system, and 4,218,099 tons on the Lower Mississippi system. By actual carriage and towing these passenger and freight steamers moved 11,159,798 tons of freight on the rivers of the valley, of which amount 1,502,061 tons were moved on the Upper Mississippi system and Red River of the North, 4,646,996 tons on the Ohio system, and 5,010,741 tons on the Lower Mississippi system.

So far but 28,293,140 tons of freight out of a total movement of 29,405,046 tons have been accounted for. The remaining 1,111,906 tons are credited to the 163 ferryboats. As was explained when speaking of the expense accounts of these steamers, the report of freight carried is not as satisfactory as it might be, because of the claims made by their owners, either that the freight movement had already been given in the reports of railroads or else that their freight had been carried in such a shape (by wagon or car load) that no tonnage returns could possibly be made. Of the 1,111,906 tons given, 539,057 tons were reported for the Upper Mississippi, 800 for the Saint Croix, 158,035 for the Missouri, 244,898 for the Ohio, 168,016 for the Lower Mississippi, and 1,100 for the Arkansas.

It was on these 3 classes of steamers, the passenger and freight, ferry, and towboats, that the passenger traffic of the Mississippi valley was conducted (see Table 7). Most of the excursion passengers were either carried on the towboats or towed on barges by them, while the regular and ferry passengers were of course carried on the steamers devoted to the respective business. The total number of passengers carried during 1889 was, it will be seen, 10,858,894, made up of 2,384,248 regular and excursion passengers and 8,474,646 ferry passengers. By systems, it is found that there were 338,750 regular and excursion passengers carried on the Upper Mississippi and its tributaries and 1,482,984 ferry passengers, a total of 1,821,734. On the Ohio system the regular and excursion

passengers amounted to 1,506,594 and the ferry passengers to 4,996,549, a total of 6,503,143; while on the Lower Mississippi system the regular and excursion passengers numbered 538,904 and the ferry passengers 1,995,113, a total of 2,534,017. No passenger movement was reported for the Red River of the North.

MOVEMENT OF COMMODITIES.

In the analysis of freight traffic shown by Tables 9, 10, 11, and 12 it is seen that while about 30 commodities are reported there are 6 principal commodities which easily lead, these being grain, cotton, coal, iron ore, lumber and forest products, and cotton seed and cotton-seed oil. The movement of these different commodities (see Table 12) was as follows: grain, 1,730,918 tons (wheat, 848,442 tons; corn, 786,888 tons; other grain, 95,588 tons); cotton, 896,292 tons; coal, 8,539,229 tons; iron ore, 574,790 tons; lumber and forest products, 9,300,641 tons; cotton seed and cotton-seed oil, 394,788 tons. Other items of which there was a large movement were: sugar, 190,873 tons; animal products, 177,376 tons; stone and gravel, 178,631 tons; clay and sand, 142,423 tons; hay, 91,579 tons, and iron manufactures, outside of iron (pig and bloom), 92,110 tons. Of flour-mill products there were moved 90,895 tons; of tobacco, 27,959 tons; of fruit and vegetables, 59,610 tons; of ice, 91,010 tons; of petroleum and other oils, 3,538 tons; of iron (pig and bloom), 7,775 tons; of cement, brick, and lime, 2,375 tons; of all other manufactures (including salt), 74,596 tons; of unclassified merchandise, 6,737,075 tons.

The great barge movement (Table 10) was of such commodities as corn, hay, coal, iron ore, stone and gravel, clay and sand, ice, lumber and forest products, cotton, and sugar. Out of a total movement of 91,579 tons of hay 57,635 tons were towed on barges; out of a total of 8,539,229 tons of coal 8,527,115 tons were towed; out of a total of 574,790 tons of iron ore 573,896 tons were towed; out of a total of 178,631 tons of stone and gravel 156,699 tons were towed; out of a total of 142,423 tons of clay and sand 141,464 tons were towed; out of a total of 91,010 tons of ice 91,000 tons were towed; out of a total of 9,300,641 tons of lumber and forest products 8,652,696 tons were towed; out of a total of 190,873 tons of sugar 100,000 tons were towed, and out of a total of 786,888 tons of corn 471,203 tons were towed. The principal towing of these commodities was conducted as follows: that of corn, on the Lower Mississippi, 471,203 tons; that of hay was principally, on the Missouri, 5,000 tons; the Tennessee, 5,000 tons; the Lower Mississippi, 5,000 tons, and the Arkansas, 42,000 tons. The principal towing of coal was done, on the Ohio, 4,018,787 tons; on the Monongahela, 3,059,418 tons; on the Great Kanawha, 941,446 tons; on the Lower Mississippi, 183,848 tons, and on the Arkansas, 165,888 tons. The principal barge movement of iron ore was on the Tennessee, on which 528,248 tons were towed out of a total of 573,896 tons. Stone and gravel were principally towed, on the Allegheny, 19,050 tons; on the Kentucky, 12,861 tons, and on the Arkansas, 120,000 tons. The principal barge movement of clay and sand was, on the Allegheny, 51,500 tons, and on the Cumberland, 89,964 tons. The principal ice movement on barges was on the Upper Mississippi, 45,050 tons, and on the Illinois, 41,950 tons. The principal barge movement of lumber and other forest products was 3,372,874 tons on the Upper Mississippi, 846,016 tons on the Saint Croix, 1,131,755 tons on the Ohio, 600,000 tons on the Green, 664,318 tons on the Cumberland, 310,654 tons on the Lower Mississippi, 261,906 tons on the Arkansas, and 325,477 tons on the Chippewa. The principal barge movement of sugar was 100,000 tons on the Lower Mississippi.

Of the commodities which were almost entirely carried on board passenger and freight steamers, the principal were wheat, other grains, mill products, cotton, iron (pig and bloom), cement, brick, and lime, all other manufactures, cotton seed and cotton-seed oil, and general merchandise. Those commodities which were carried entirely on passenger and freight steamers, or of which at least there was no barge movement, were tobacco, fruit and vegetables, animal products, petroleum and other oil, iron manufactures, and bar and sheet metal.

The ferry traffic could not be very well divided into commodities for reasons already referred to, and the bulk of the 1,111,906 tons had to be set down as general merchandise, the figures of that comprehensive commodity being 958,214 tons. Other commodities of which there was a ferry movement, and of which whole or partial returns were received, were: wheat, 8,461 tons; corn, 4,087 tons; other grain, 2,872 tons; mill products, 323 tons; cotton, 550 tons; tobacco, 252 tons; fruit and vegetables, 17,862 tons; coal, 11,801 tons; lumber, 100,400 tons; animal products, 6,858 tons; cement, brick, and lime, 182 tons, with a scattering tonnage of petroleum, sugar, bar and sheet metal, and all other manufactures.

CHARACTERISTICS OF TRAFFIC.

One of the principal values of these commodity tables will be to indicate the distinctive character of the local traffic on each of the rivers. It will be seen, for example, in Table 12 that the bulk of the Upper Mississippi's trade was in lumber and other forest products, the tonnage of that commodity standing at 3,473,189 tons out of a total tonnage movement on that river of 4,486,421 tons, the balance being almost entirely made up of 23,000 tons of wheat, 22,424 tons of coal, 45,050 tons of ice, and 913,888 tons of merchandise. The trade of the Saint Croix consisted almost entirely of a lumber movement, as did that of the Chippewa. The traffic on the Illinois, however, was a much more general one, 114,431 tons of general merchandise having been carried out of a total movement of 180,264 tons. The chief items of commodity movement on the Missouri, Osage, and Gasconade were: wheat, 141,658 tons; corn, 50,502 tons; mill products, 9,598 tons; coal, 51,162 tons; lumber, 104,384 tons; animal products, 11,424 tons, and

general merchandise 743,769 tons. The traffic on the Ohio was a very general one, and included 125,003 tons of wheat, 2,585 tons of corn, 18,522 tons of cotton, 11,656 tons of iron ore, 57,881 tons of sugar, 54,297 tons of iron, and 55,163 tons of all other manufactures; but the principal commodities after all were those of coal, lumber, and general merchandise, the figures being, respectively, 4,018,788 tons, 1,131,777 tons, and 2,293,466 tons. The Allegheny traffic consisted almost entirely of stone and gravel, 19,050 tons; clay and sand, 51,500 tons, and lumber and other forest products, 276,860 tons. The Monongahela's chief commodity was of course coal, there being 3,059,418 tons of that commodity moved out of a total river movement of 3,294,932 tons. The Muskingum's traffic was one of general merchandise; that of the Little Kanawha was almost entirely of lumber and other forest products; that of the Great Kanawha was chiefly confined to coal, 941,446 tons; lumber, 80,468 tons, and general merchandise, 119,848 tons. The Big Sandy's trade consisted very largely of lumber, 142,950 tons, and merchandise, 139,889 tons, the Kentucky running in the same way. The list of the Green's commodities was a much more general one, although lumber was still the principal commodity. The Wabash included a large grain and lumber movement in its report, as did the Cumberland, with an additional item of 89,964 tons of clay and sand. The Tennessee's traffic covered almost the entire list of commodities, although the principal items were 528,248 tons of iron ore, 17,984 tons of corn, 12,542 tons of cotton, 18,657 tons of fruit and vegetables, 35,888 tons of coal, and 20,178 tons of stone. The Lower Mississippi carried but little manufactures, comparatively, except in the item of sugar, of which the tonnage was 130,828 tons; the other principal items were products of agriculture, including 422,800 tons of wheat, 498,746 tons of corn, and 784,008 tons of cotton, the other chief commodities being 183,848 tons of coal; cotton seed and cotton-seed oil, 271,809 tons; general merchandise, 1,704,745 tons, and 310,654 tons of lumber. The traffic of the White was mainly that of lumber, but that of the Arkansas embraced the products of agriculture, mines, and manufactures about equally distributed. The Yazoo's trade was largely made up of 3 items: 22,865 tons of corn, 27,861 tons of lumber, and 14,124 tons of cotton seed and cotton-seed oil. Very nearly the same distribution of freight is to be seen in the Yazoo, the Washita, and the Red.

RESTRICTION OF RETURNS.

As was said in an early paragraph of this text, the attempt has been made, wherever possible, to credit to each stream the commodity traffic which originated there or which was confined to points along that stream; that is, to the Illinois river, for instance, there was credited the 18,000 tons of wheat which were either moved from some point on that river to some other point on the Illinois, or which were moved from some point on the Illinois to some point on another stream. Of course, in attempting to thus confine the credit of freight operations in certain commodities to certain streams, the great difficulty has been to avoid a duplication of freight movement when considering the transportation of the same commodity on some other stream; that is, the difficulty has been to say that no part of these 18,000 tons of wheat is found in the report of wheat movement on any other river. It has, indeed, been almost impossible to confine this commodity movement within such strict limits, but the attempt has been made with reasonable success.

In such commodities as cotton, tobacco, iron ore, sugar and molasses, cotton seed, cotton-seed oil, and hay the work of limitation has not been so difficult, the movement of these commodities being a localized one, but in the movement of such commodities as coal and lumber and other forest products it has been a difficult matter to procure a correct limitation. Take, for example, the commodity of coal. Table 12 shows that in 1889 there were moved on the Ohio 4,018,788 tons of coal, on the Monongahela 3,059,418 tons, on the Great Kanawha 941,446 tons, the coal movement on the other tributaries of the Ohio making a total for the system of 8,102,544 tons of coal. Here the chief rivers of origin were the Monongahela and the Great Kanawha, while the great center of distribution was Pittsburg. The chief points of supply were Pittsburg, Wheeling, Cincinnati, Louisville, Saint Louis, Memphis, and New Orleans. In the supply of these different points the coal was towed out on barges from the Ohio into the Mississippi, and the difficulty has been to say decisively whether the coal taken over the Lower Mississippi, in the supply of the different cities along that stream, should be set down as part of the traffic of the Lower Mississippi or go only to the Ohio as the stream of origin. It has been found that of the 8,102,544 tons of coal which are set down to the credit of the Ohio and its tributaries 2,104,681 tons were brought out into the Lower Mississippi, while it has also been found that the coal movement which either had its origin on the Lower Mississippi or was confined to between points on that stream, exclusive of the stoppage of coal barges en route from the Ohio to points on the Lower Mississippi, amounted to 183,848 tons. The superior part of Table 12, it will be seen, sets down this amount as being the traffic in the commodity of coal, which alone should be properly credited to the Lower Mississippi, while in the subsidiary part of the same table it is shown that on the Lower Mississippi there was moved a total of 2,288,529 tons of coal, that amount being made up out of the coal brought down from the Ohio and the coal which was moved along the Lower Mississippi as the river of origin.

A similar treatment has been made with respect to the statistics of lumber. Here, it will be seen, the amount of lumber carried over the Lower Mississippi, irrespective of origin, was 1,794,719, while the traffic in lumber on the Lower Mississippi as a river of origin was but 310,654 tons.

STATISTICS OF TRANSPORTATION.

ORIGIN OF FREIGHT.

The two sets of figures, therefore, show that on the Lower Mississippi system there was a total movement of coal, irrespective of origin, of 2,465,480 tons, but that on the Lower Mississippi system, as a system of origin, there was a movement of but 360,799 tons, while the total lumber movement on the Lower Mississippi system, irrespective of origin, was 2,222,813 tons, but that the lumber movement on the Lower Mississippi and its tributaries as points of origin was only 738,748 tons.

In the matter of coal it will be seen the total movement on the Upper Mississippi system was 75,886 tons, that on the Ohio system was 8,102,544 tons, and that of the Lower Mississippi and its tributaries was 2,465,480 tons, which, added together, would give a grand total as the freight movement in coal of the vessels on those 3 systems of 10,643,910 tons. But in making up a computation of the total movement of the commodity of coal on these 3 systems it should be understood that it is only proper to take the 75,886 tons on the Upper Mississippi and its tributaries, the 8,102,544 tons on the Ohio and its tributaries, and the 360,799 tons on the Lower Mississippi and its tributaries, with the total of 8,539,229 tons as the true total of the report of the commodity movement of coal on the rivers of the Mississippi valley. In the same way the 3 totals of 4,749,808 tons, 3,812,035 tons, and 2,222,813 tons of lumber and other forest products can be considered as the total freight movement in lumber by all the vessels of the Mississippi valley, but the actual amount of lumber moved on the rivers of the Mississippi valley was only 9,300,641 tons, made up of the 4,749,808 tons moved on the Upper Mississippi and its tributaries as rivers of origin, the 3,812,035 tons moved on the Ohio and its tributaries as rivers of origin, 738,748 tons moved on the Lower Mississippi and its tributaries as rivers of origin, and the 50 tons moved on the Red River of the North as river of origin.

COAL MOVEMENT ON THE OHIO.

From the preceding analysis it will be observed that by far the most important item of freight of the Ohio is coal, and on this account it was thought advisable in preparing a bulletin (No. 88) on transportation on this river to attempt to localize the coal traffic. The subjoined table was therefore worked out, showing the amount of coal shipped from Pittsburg (Pennsylvania), Point Pleasant (West Virginia), Pomeroy (Ohio), Ashland (Kentucky), and Bellaire (Ohio), and the cities to which this coal was shipped:

COAL TRAFFIC ON THE OHIO.

A.—AMOUNT OF COAL SHIPPED FROM PLACES NAMED AND THE DISTANCE CARRIED EXPRESSED IN TON MILEAGE.

FROM—	Tons.	Tons moved 1 mile.
Total.....	4,018,788	2,644,392,853
Pittsburg, Pennsylvania.....	2,753,599	2,382,822,128
Point Pleasant, West Virginia.....	1,067,857	231,087,122
Pomeroy, Ohio.....	136,900	23,780,489
Ashland, Kentucky.....	42,530	6,013,350
Bellaire, Ohio.....	17,902	689,764

B.—AMOUNT OF COAL SHIPPED FROM PITTSBURG TO PLACES NAMED.

TO—	Tons.	Miles.	Tons moved 1 mile.	TO—	Tons.	Miles.	Tons moved 1 mile.
Total.....	2,753,599		2,382,822,128	Greenville, Mississippi.....	10,000	1,465	14,650,000
Cincinnati, Ohio.....	1,287,394	467	601,212,998	Natchez, Mississippi.....	46,231	1,708	78,962,548
Cairo, Illinois.....	20,000	967	19,340,000	New Orleans, Louisiana.....	401,805	1,980	973,773,930
Saint Louis, Missouri.....	100,000	1,167	116,700,000	Louisville, Kentucky.....	596,249	598	356,556,902
Memphis, Tennessee.....	126,160	1,205	152,022,800	Baton Rouge, Louisiana.....	9,460	1,848	17,482,080
Helena, Arkansas.....	10,000	1,284	12,840,000	Madison, Indiana.....	44,000	570	25,080,000
White river, Arkansas.....	10,000	1,378	13,780,000	Parkersburg, West Virginia.....	2,300	183	420,900

C.—AMOUNT OF COAL SHIPPED FROM POINT PLEASANT TO PLACES NAMED.

Total.....	1,067,857		231,087,122	Greenville, Mississippi.....	652	1,201	783,052
Cincinnati, Ohio.....	1,010,181	203	205,066,743	Memphis, Tennessee.....	539	941	507,190
Louisville, Kentucky.....	46,315	334	15,469,210	Frankfort, Kentucky.....	506	388	171,028
New Orleans, Louisiana.....	481	1,716	825,396	Orange, Kentucky.....	1,567	373	584,491
Baton Rouge, Louisiana.....	1,176	1,584	1,862,784	Lawrenceburg, Kentucky.....	476	226	107,576
Donaldsonville, Louisiana.....	183	1,640	300,120	Vanceburg, Kentucky.....	109	111	12,000
Bayou Sara, Louisiana.....	1,602	1,549	2,481,498	Portsmouth, Ohio.....	1,639	90	147,510
Vicksburg, Mississippi.....	2,023	1,336	2,702,728	Augusta, Kentucky.....	408	161	65,686

COAL TRAFFIC ON THE OHIO—Continued.

D.—AMOUNT OF COAL SHIPPED FROM POMEROY TO PLACES NAMED.

TO—	Tons.	Miles.	Tons moved 1 mile.	TO—	Tons.	Miles.	Tons moved 1 mile.
Total	136,900		23,783,480	Frankfort, Kentucky	1,091	353	596,923
Cincinnati, Ohio	30,324	218	6,610,632	Maysville, Kentucky	49,383	156	7,703,748
Covington, Kentucky	8,424	349	2,939,976	Vanceburg, Kentucky	2,400	126	302,400
Portsmouth, Ohio	25,994	105	2,729,370	Ripley, Ohio	8,800	165	1,452,000
Huntington, West Virginia	2,684	60	161,040	Richmond, Ohio	3,200	197	630,400
				Manchester, Ohio	2,000	145	290,000
				Chilo, Ohio	2,030	182	364,000

E.—AMOUNT OF COAL SHIPPED FROM ASHLAND TO PLACES NAMED.

TO—	Tons.	Miles.	Tons moved 1 mile.
Total	42,530		6,013,350
Cincinnati, Ohio	40,850	147	6,004,950
Ironton, Ohio	1,680	5	8,400

The 7 tables of classified details (Tables 13 to 19, inclusive) may safely be considered as self-explanatory, and as really being prepared and presented more as a matter of comprehensive convenience than as furnishing any new lesson.

STATISTICS OF 1880 AND 1889.

In considering the comparative statistics embraced in Tables 20 to 28, inclusive, some peculiar conditions are encountered. As will be seen by the comparative table of equipment (Table 20), there were registered in the ports of the Mississippi valley in 1880 1,198 steamers, which had a tonnage of 251,792.85 and a value of \$12,009,400, while in 1889 the registered steamers numbered 1,114, with a tonnage of 210,771.89 and a value of \$10,539,251, a decrease of 84 steamers, of 41,020.96 tonnage tons, and of \$1,470,149 in value. On the other hand, it will be found that while in 1880 the unriggered craft of the Mississippi valley numbered 3,854, with a tonnage of 909,824.01, the unriggered in 1889 had risen to 6,339 in number, with a tonnage of 3,182,608, an increased number of 2,485, with an increased tonnage of 2,272,783.99. Notwithstanding this increase of tonnage and number, the valuation of the unriggered remains almost stationary. So far as the valuations are concerned, however, they may be considered as a varying quantity. The schedule calls for "estimated commercial value", and the figures set down will run high or low according to the basis upon which the estimator places his value. In some cases a man estimates his vessels at what they cost, while in other cases he estimates them only at what he supposes they would realize in sale, while the insurance agent may have a third estimate; then, too, the depreciation in value has to be considered as a factor in these estimates, although in this case there is no depreciation sufficient to balance the positive increase of craft. A reasonable explanation of difference of estimate arises in the fact that the values given for 1880 are those which were made by local or general experts, while those for 1889 were returned by the owners themselves, and that these owners from first to last manifested a very conservative spirit in rating the value of their property. The same difference in values will be found in the total of all craft owned on the Mississippi valley, for while the total number for 1880 stands at 5,052 and that for 1889 at 7,453, an increase of 2,401, and the total tonnage for 1889 shows an increase of 2,231,763.03 tons, still the valuation remains almost stationary. It is repeated that it is a safe estimate that there is an undervaluation of at least 30 per cent on all these vessels reported for 1889, and calculating on this basis there is an omitted value of \$6,572,145 for 1889, which, added to the estimated commercial value as reported, will give the total valuation for all the craft of the Mississippi in 1889 of \$21,907,150, figures which are somewhat nearer the mark.

NEW METHODS OF TRANSPORTATION.

The decrease in the number of the Mississippi valley steamers must not be taken as an indication of a waning industry. The explanation lies in the new method of transportation as indicated in the increased number and value of unriggered. The exceedingly large barge tonnage on the Ohio has already been referred to, and in addition to this it may be said that at Pittsburg itself there are owned no fewer than 3,581 barges, having a tonnage of 1,982,407 and a value of \$2,145,765, or an average of nearly \$600. Some of the barges rise in value, however, to \$2,000, while there are others, employed by the wood sellers on the small streams, for which \$50 would be a generous estimate. Wood, of course, is the material most generally used, but iron is also freely employed, and steel appears to be coming into favor as a material of construction.

The main employment of the great Pittsburg fleet of barges is in the transportation of coal, and concerning this industry the text of the Tenth Census report on steam navigation of the United States contained the following interesting description:

COAL BARGES OF THE OHIO.

This coal is mined along the banks of the Monongahela river, which has been improved by a series of dams and locks, dividing it up into what are called pools or pockets. Here the small tows, consisting of 3 or 4 loaded barges, are made up and taken out through the locks to Pittsburg, where they are combined in still larger tows for transportation to Louisville. Here they are again combined into immense tows of 30 or more barges and boats for the final trip down the Mississippi. The steamer is put behind these barges and all are bound together in one firm mass by means of ropes and chains tightened by ratchets, and the steamer used as a rudder to guide the field of barges around the bends in the river, great skill being required in the strong currents in performing this task, called "flanking". * * * Coal boats contain about 24,000 bushels or 900 tons, and cost from \$700 to \$800 when new. A tow from Pittsburg to Louisville consists of from 12 to 16 barges, or 8 to 10 coal boats, and from Louisville to points below, from 16 to 20 boats and barges. One of the largest tows that was ever taken down from Louisville contained 38 pieces, measuring 862 feet in length, 260 feet in width, and contained 679,854 bushels, and beside this the steamer carried 19,500 bushels, making a grand total of 699,354 bushels, or 25,902 tons. It is claimed that in this traffic is found the cheapest freight rate in the country, as coal has been put into New Orleans, 2,000 miles from Pittsburg, at 60 cents per ton.

This change in method was indicated in the text of the Tenth Census. In speaking of the river interests of the Mississippi in that chapter of Volume IV entitled "Steam navigation in the United States", it says:

The growth of this model barge system on the western rivers has been steady for the past 4 years, and it is now assuming an importance in the commerce of the west worthy of attention. Of the better class of barges * * * there were on the Mississippi and Ohio 286 reported to this office, measuring 158,771.50 tons actual capacity. * * * In the movement of bulk grain and heavy freights this system is gradually supplanting the ordinary steamer, and it has many advantages. By economy of time and steady movement the barge tug would equal the steamer in speed, making the run from Saint Louis to New Orleans with 5 to 7 barges in about 5 days, at a cash expense of \$1,000. The round trip will not exceed 16 or 17 days. The capacity of the barges varies from 18,000 to 100,000 bushels, the medium being about 35,000 bushels, so that an average tow consists of 7 barges containing 232,834 bushels, or about 7,000 tons.

INCREASE OF TOWED FREIGHT.

This relation of cause and effect is seen to be consistently carried out in the fifth comparative table (Table 24), showing the comparative freight movement in 1880 and 1889. On the steamers, in the first-mentioned year, there were transported 13,557,884 tons of freight, while in 1889 the actual transportation of freight by steamer was but 10,345,504 tons, a decrease of 3,212,380 tons. But while the business of the freight steamer has decreased, it will be seen that the towed freight has very materially gone up, the figures for 1880 being 5,388,638 tons, while in 1889 they had risen to 19,059,542 tons, an increase of 13,670,904 tons of towed freight. The decreased steamer-carried freight will of course diminish this gain, but even when the 3,212,380 tons decrease in steamer freight is taken from the 13,670,904 tons of towed freight there remains a net increase of 10,458,524 tons of freight moved on the rivers of the Mississippi valley in 1889 over the total of 1880, although it is but proper to state here that this increase would probably suffer a diminution if the barge movement for 1880 had been as fully reported as it has been for 1889. On the other hand, it must be understood that 1889 was what is known as a poor year, nearly all of the rivers having suffered from low water. The passenger business has kept up much more steadily than it had been imagined would be the case, and it will be seen that in both the "ferry" and "regular" divisions of the passenger returns the ratio of increased travel has run very steadily with that of population.

COMPARED EARNINGS.

Turning back to the comparative expense account shown in Table 22, it will be seen that only the gross earnings are compared, this limitation being necessary because in the returns for 1880 only that portion of the account was asked for. There is an apparent contradiction here, for while the traffic has increased, as has been shown, the amount of gross earnings has diminished. In 1880 the gross earnings of the Mississippi valley fleet were \$20,293,173, while in 1889 they were reported at but \$16,337,533, a difference of \$3,855,640. Much of this difference can be ascribed to the same set of causes which operate in the returns of valuation, while much more can be ascribed to the diminished earnings of water transportation due to increased competition of railroads. A poor paying business especially affected the Upper Mississippi and the Missouri, as will be seen by the comparative returns for these two parts of the valley system. The business was done for whatever could be had, and in many cases the shipper fixed his own rates. Then, too, the diminution of earnings on the Upper Mississippi and Missouri is attributable to the fact that these are branches of the system where the old methods of transportation still largely obtain, while on the Lower Mississippi, where the new methods of transportation have so rapidly come into vogue, the increase of gross earnings is equally noticeable. On the Ohio the decrease can only be ascribed to the effect of ardent competition. It must be remembered, however, that these are gross earnings, and that in the absence of the expense account they offer no indication whatever of profits. The bulk of the business on the Mississippi and its branches is rapidly passing into the hands of large concerns, which are enabled to control their expenses in such a way as to considerably diminish their gross earnings and yet maintain their net profit.

In Table 23 there are two interesting columns which show the total crews and the amount paid in wages during 1880 and 1889. By the term "total crews", it is repeated, there must be understood the total number of men making up the totals of the ordinary crews required on board each craft, and not the total number of men employed during the year. Here it will be seen that the total number of men has fallen from 23,616 to 15,996, a diminution of 7,620 men, while the wages paid have only dropped from \$6,979,226 to \$5,338,862, a decrease of \$1,640,364, two decrements which do not preserve their ratio. On looking for an explanation of this, it is found set down in the last 3 columns, which show that the rate of wages per man per annum has increased in every part of the system with the exception of the Missouri, and that the whole annual rate of wages has increased \$38.23 per man. The increase, it will be observed, is largest on the Lower Mississippi, and next stands the Ohio, two branches of the valley system where transportation by barges is most practiced. Though the total number of crews has decreased in consequence of the diminution of freight steamers, the smaller number of men who are employed on the barges are men in the receipt of a much higher rate of wages than those whose services have been dispensed with.

FLUCTUATIONS OF FLEETS.

The fluctuations in the documented fleets of the Mississippi valley rivers for the 10 years 1880 to 1889, inclusive, are clearly shown in the 3 tables, 25, 26, and 27, which were carefully prepared from information furnished by the courtesy of the commissioner of navigation and the bureau of statistics.

Two things will be noted from a glance at Table 25: first, that the number of steamers which the commissioner reports as having been documented in 1880 is not the same number as is given by the census for that year as the fleet of the valley, and, second, the very decided drop from the barge fleet of 1880 to that of 1881.

With respect to the first difference it may be stated that the 1,225 steamers which the commissioner reports as the documented fleet of the Mississippi valley also include those steamers which traded from New Orleans seaward, while the 1,198 steamers which the census states formed the fleet for that year do not include those steamers. No division of this sort was made in the commissioner's report until the year 1883, when the New Orleans river fleet was segregated, the number for the port in that year standing at 132 as against 172 for the previous year, and the actual river fleet for the whole valley being set at 1,163 as against 1,226 for 1882.

The very remarkable drop in the barge fleet from 1,070 in 1880 to 233 in 1881 is due to the fact that it was about this time that the law went into effect by which the registration of barges was only compulsory in those cases wherein these craft were employed in the carriage of bonded goods. It may be added here that the still greater difference between the number of barges (1,070) reported on by the commissioner for 1880, and the number (3,854) reported on by the census for the same year is due to the other fact that for this year, as for every other year, the commissioner only reports upon registered barges, while the census reports on every unrigged craft owned and operated. The same explanation can be applied to the number of barges (132) given by the commissioner as the barge fleet in Table 25 for the year 1889, and the number (6,339) given in Tables 1 and 20 as the census barge fleet for the same year.

INDIVIDUAL CASES.

In looking at the number of steamers registered in the customs districts (Table 26), it is found that in this particular Cincinnati has almost stood still, its registration for 1880 being 116, and for 1889 115, its lowest point being in 1884, when its registered fleet was 101, and its highest number being the 116 which made its entry for both 1880 and 1888.

In point of number Saint Louis has very perceptibly and steadily decreased, the series running 162, 153, 163, 160, 136, 141, 129, 132, 123, 115.

Wheeling shows a similar decrease, its series being 142, 137, 144, 110, 109, 112, 101, 109, 109, 94.

Pittsburg, however, shows a far less depreciation, its series of registered fleets being 168, 160, 169, 157, 163, 155, 154, 158, 155, 152.

On the other hand, the customhouse books at Memphis have shown an increase in number, the 1880 fleet numbering 66 and the 1889 fleet numbering 71, the lowest point being 65 in 1881, and the highest being 82 in 1887.

Dubuque has remained almost stationary. In 1880 it had 29 registered steamers and in 1889 it had 28, the average annual registered fleet numbering 25.70.

Vicksburg, with the exception of a temporary obscuration in 1881 and 1882, has maintained a singularly unvarying fleet, the figures for 1883 onward being 28, 30, 32, 30, 30, 30, 30, this being the steadiest record of all the ports, with the exception, perhaps, of Natchez and the district of Minnesota, the first-mentioned district running 3, 5, 4, 4, 3, 3, 3, 4, 4, and the second 48, 45, 48, 46, 48, 44, 46, 49, 47, 46.

Louisville's variation has been but little, too, so far as the number of registered craft is concerned, the fleet of 1889 being 52 against a 53 fleet for 1880.

Burlington took a sudden advance in 1881, showing 42 registered steamers against 31 for the preceding year, but from 1881 onward the registrations have changed very little, the series being 42, 43, 45, 46, 45, 45, 43, 42, 43.

Lacrosse has a record of tolerably steady increase, its fleet running at 39, 44, 45, 35, 43, 40, 41, 45, 45, 47.

Galena also comes very close to maintaining the same standard, the series being 25, 23, 23, 25, 23, 24, 23, 26, 26, 27, a deflection of 2.50 from an average of 24.50.

Evansville shows more fluctuations, and Omaha still more, while New Orleans, from and inclusive of 1883, has experienced but few variations, the series being 132, 138, 127, 125, 129, 127, 126.

Nashville does not appear, it will be observed, after 1887, its registrations being now merged in those of Paducah, which port began registering in 1884. The latter's increase since that time has been the most remarkable of any on the list, the series being 9, 18, 23, 29, 42, 53.

Cairo ceased to be a port of entry in 1885, the 18 steamers it then had being distributed among other ports.

Chattanooga only came into record as a port of entry in 1882, the number of registered steamers that year standing at 13, and for the 7 succeeding years at 17, 16, 18, 15, 17, 20, 22.

Kansas city and Saint Joseph are also comparatively new ports of entry, the first beginning to record in 1883, the series since that time being 11, 11, 13, 13, 13, 16, and the second beginning to record in 1885, with a continued series of 3, 4, 6, 6, 6.

CHANGES IN REGISTERED TONNAGE.

Passing next to a consideration of the registered tonnage in the customs districts, it is found that New Orleans has experienced a moderate decrease, the figures running down from 21,199 tons in 1883 to 19,249 tons in 1889.

Natchez, on the other hand, has made a considerable advance, for though its registered tonnage was never large it has increased from 192 tons in the first year of the decade to 592 tons in the last year. Its average annual registration of tonnage was 359.11, the 2 years mentioned showing the highest point above and lowest point below the average, with 1885 as the year when the registered tonnage, 303 tons, was closest to the average.

Vicksburg shows an average annual registration of 2,735 tons, the year of greatest registration being 1885, with 3,638 tons, the year of lowest registration (omitting 1882) being 1886, with 2,556 tons, and the year 1887 coming closest to the average, with 2,723 tons.

Memphis has had many fluctuations of registration, that of the year 1889, being the year of average registration, with 12,114 tons; 1884, with 14,977 tons, marking the highest limit, and 1882, with 10,426 tons, marking the lowest limit.

As has been already stated, Nashville ceased to be a port of registration after 1887, its registered tonnage in that year being about the same as it was in 1880, the exact figures being 3,469 tons and 3,621 tons.

Chattanooga, on the other hand, and as has also been stated, only came into existence as a port of registration in 1882, the customhouse entries from that time onward being a continually increasing one and rising from 1,567 tons to 3,966 tons in 1889.

Louisville has experienced a marked declination, the registered tonnage in 1880 being 17,750 tons, and that in 1889 being 11,938 tons. The year 1884 was the year of highest registration of this port, the returns showing entries amounting to 18,175 tons.

The record of Paducah has been a very remarkable one. The first registrations of tonnage were made in 1884, when they amounted to 652 tons, while in 1889 they had risen to 8,781 tons.

Saint Louis's decline in registered tonnage has been even more marked than that of Louisville, for while in 1880 it was 59,699 tons, in 1889 it was but 42,827 tons. Its best year was 1883, when the registered tonnage amounted to 62,350 tons.

The record of Kansas city is almost as remarkable as that of Paducah, the first registrations being in 1883 and amounting to 113 tons, those of 1889 standing at 1,781 tons.

DISTRICT RECORDS.

The port of Saint Joseph, which only began an existence as a port of registration in 1885 with 297 tons, showed entries amounting to 747 tons in 1887, that number decreasing to 341 tons in 1889.

One of the ports of steadiest record has been that of Burlington, its tonnage list in 1880 being 2,414 tons and that of 1889 being 5,059 tons, the average registration being 4,510.40 tons.

Dubuque has an almost corresponding record, the registered tonnage for 1880 being 3,697 tons and that of 1889 being 6,355 tons, with an average registered tonnage of 4,455.30.

Lacrosse has experienced a very notable decline in importance as a port of registration. The records for 1880, 1881, and 1882 give over 6,000 tons for each year. Then came a drop to 3,028 tons in 1883, since which time, however, the entries have crept up little by little, until in 1889 they amounted to 3,884 tons.

The district of Minnesota has about stood still, the registrations in 1880 amounting to 5,873 tons, and those in 1889 amounting to 5,214 tons, the average annual registration being 6,146.80 tons.

The port of Galena has shown a slow but healthy increase, the tonnage registered in 1880 being 2,267 tons, and that in 1889 being 3,130 tons, the average annual registration being 2,634.60 tons.

Cairo ceased to be a port of registration in 1885, at which time the customhouse books showed a registration of 3,508 tons.

Though the registered tonnage of Evansville was greater in 1889 than it was in 1880, the figures being 6,951 tons against 5,709, each year was below the annual average registration of 7,123.30 tons, the years of largest entries being 1884, 1885, 1886, and 1888, when it was over 8,000 tons for each year.

The tributaries of the Upper Mississippi which flow into it from the north and east are the **Prairie**, the **Rum**, the **Saint Croix**, the **Chippewa**, the **Black**, the **Wisconsin**, the **Galena**, the **Rock**, and the **Illinois**.

The important tributaries of the **Saint Croix** are the **Yellow** and the **Totogatic**.

The **Chippewa** has a large tributary named the **Flambeau**.

Because of an artificial channel the **Fox** may now be considered as a tributary of the **Wisconsin**.

The **Rock** has a tributary named the **Green**.

The principal tributaries of the **Illinois** are the **Kankakee**, the **Des Plaines**, the **Vermilion**, the **Mackinaw**, the **Spoon**, the **Sangamon**, and the **Fox**, which of course must not be confounded with the **Fox** of **Wisconsin**.

The tributaries of the Upper Mississippi on the south and west are the **Minnesota**, the **Cannon**, the **Grand**, the **Zumbro**, the **Iowa**, the **Des Moines**, the **Salt**, and the **Cuivre**.

The **Minnesota** has as chief tributaries, the **Yellow Medicine** and the **Chippewa**, which must not be confounded with the **Chippewa** of **Wisconsin**.

The **Red River** of the North may now also be considered a tributary of the **Minnesota**, communication having been effected between the two via **Portage** lake.

The **Iowa** has for its tributary the **Red Cedar**.

The chief tributaries of the **Missouri** are the **Big** and **Little Sioux**, the **James** or **Dakota**, the **Milk**, the **Yellowstone**, the **Little Missouri**, the **Cheyenne**, the **White**, the **Niobrara**, the **Platte**, the **Kansas**, the **Osage**, and **Gasconade**, and the 3 rivers of formation, the **Jefferson**, the **Madison**, and the **Gallatin**.

The chief tributaries of the **Yellowstone** are the **Bighorn** and the **Powder**.

The principal tributaries of the **Cheyenne** are its forks and the **Cherry creek**.

The **Niobrara** has a number of tributaries, the principal of which are the **Snake** and the **Keya Paha**.

The **Milk** river has a number of tributaries, but the most important of them are known either as branches or forks.

The **Platte** can not be said to have any tributaries of importance, its formation occurring at **North Platte**, in **Lincoln** county, **Nebraska**, by the union of the **North** and **South Platte** rivers.

The **Kansas** has many tributaries, of which the principal are the **Delaware**, the **Vermilion**, the **Big Blue**, the **Republican**, the **Solomon**, the **Saline**, and the **Smoky Hill**.

The tributaries of the Lower Mississippi which flow into it on the east, omitting of course the **Ohio**, are the **Kaskaskia**, the **Obion**, the **Forked Deer**, the **Big Hatchie**, the **Yazoo**, and the **Big Black**.

The tributaries of the **Forked Deer** are all known as forks.

The **Yazoo** has for its chief tributaries the **Big Sunflower**, the **Coldwater**, the **Tallahatchie**, the **Yalobusha**, and the **Tchula**, although this latter is generally called a lake.

The tributaries of the Lower Mississippi which flow into it on the west are the **Saint Francis**, the **Arkansas**, the **Red**, and the **Atchafalaya**, and the many bayous, chief of which are the **Bayou Lafourche** and the **Bayou Terrebonne**.

The **Saint Francis** receives the waters of the **Little** (of **Missouri**) and the **L'Anguille**.

The **White** river can no longer be considered an individual affluent of the Lower Mississippi, the latest maps of the United States engineers showing it to empty into the **Arkansas** a few miles above the junction of that river with the **Mississippi**. It must therefore at this time be considered as a tributary of the **Arkansas**.

The other tributaries of the **Arkansas** are the **Cimarron**, the **Canadian**, the **Petit Jean**, and the **Fourche la Pave**.

The **White** has for tributaries the **Little Red**, the **Black** (of **Missouri**), the **Current**, and **Cache creek**.

Regarding the **Washita** and **Red** rivers, a difference of opinion seems to prevail as to which is the branch and which is the main stream, or whether each is distinct from the other; and, indeed, it is a difficult matter to keep any strict list of these constantly varying rivers. The identification of the streams is made all the more difficult because there are two **Washitas** and a **Wichita**. One of the **Washitas** flows southward through **Arkansas** into **Louisiana**, while the other comes down from **Indian** territory into **Texas** and joins the **Red** river not far below the confluence with the **Wichita**. In the present condition of the rivers, as shown by the engineers' map, it would seem best to set down the **Red** river as the main stream into which flows the **Black** as its principal tributary, the **Black** being made up of the **Tensas**, the **Washita** of **Arkansas**, the **Saline**, which must not be confounded with the tributary to the **Kansas** of the same name, and a number of bayous, the principal of which are the **Bayou Macon**, the **Bayou Boeuf**, the **Bayou Bartholomew**, the **Bayou D'Arbonne**, the **Little** river (of **Arkansas**), and the **Caney**.

THE IMPROVED GROUP.

The rivers belonging to Group II are as follows: the **Mississippi**, the **Missouri**, and the **Ohio**.

The **Saint Croix**, the **Chippewa**, the **Illinois**, the **Galena**, the **Wisconsin** by its junction with the **Fox**, the **Minnesota**, the **Cuivre**, and the **Red Cedar**.

The tributaries of the **Ohio** which have been improved or surveyed by congressional aid are: the **Guyandotte**, the **Licking**, the **Tradewater**, the **Monongahela**, the **Muskingum**, the **Little Kanawha**, the **Great Kanawha**, the **Big Sandy**, the **Kentucky**, the **Green**, the **Wabash**, the **Cumberland**, and the **Tennessee**.

The subtributaries which have been improved or surveyed by congressional aid are: the Cheat and the Buckhannon, belonging to the Monongahela; the Elk and the Gauley of the Great Kanawha; the Big fork and the Levisa fork of the Big Sandy; the Rough creek of the Green, and the White river (of Indiana) of the Wabash; the Obey river and Caney fork of the Cumberland, and the Tug, the Clinch, the Hiwassee, the French Broad, and the Little Tennessee of the Tennessee.

The tributaries of the Lower Mississippi which have received congressional aid either for improvement or survey are: the Forked Deer, the Saint Francis, the Big Black, the Big Hatchie, the Kaskaskia, the White, the Arkansas, the Yazoo, the Washita, the Black, and the Red.

The subtributaries of these various streams which have been improved or surveyed under congressional appropriations are: the L'Anguille and the Little (of Missouri), tributaries of the Saint Francis; the Black (of Missouri), the Little Red, and Cache creek, belonging to the White; the Fourche la Fave and the Petit Jean, tributaries of the Arkansas; the Big Sunflower, the Coldwater, the Yalobusha, the Tallahatchie, and the Tchula, tributaries of the Yazoo; the Little Missouri (of Arkansas), the Tensas, and Saline, tributaries of the Washita and Black, and the Little (of Louisiana) and the Caney, tributaries of the Red.

Of the various bayous which may be considered as tributaries to the Lower Mississippi system, those which have been either improved or surveyed by congressional aid are: the Bartholomew, the Black, the Bœuf, the Courtableau, the D'Arbonne, the Lafourche, the Loggy, the Pierre, the Atchafalaya, the Vidal, the Teche, the Terrebonne, the Steel, and the Cypress.

THE COMMERCIAL GROUP.

The rivers belonging to Group III are as follows: the Mississippi, the Ohio, and the Missouri.

Of the Ohio system there are: the Allegheny, the Monongahela with its tributaries, and the Buckhannon; the Little Kanawha, the Great Kanawha with its tributaries, the Elk and the Gauley; the Guyandotte, the Big Sandy, the Licking, the Kentucky, the Green and its tributary, the Barren; the Tradewater, the Cumberland and its tributary, the Caney fork; the Tennessee and its tributaries, the Clinch, the French Broad, and the Hiwassee; the Muskingum, the Wabash and its tributary, the White.

The tributaries of the Upper Mississippi on which a transportation business was done in 1889 were the Saint-Croix, the Chippewa, the Minnesota, and the Illinois.

The tributaries of the Missouri on which a transportation business was done in 1889 were the Osage and Gasconade.

The tributaries of the Lower Mississippi system on which a transportation business was done in 1889 were the Saint Francis with its tributaries, the Little and the L'Anguille; the White with its tributaries, the Little Red, the Black, and Cache; the Arkansas and its tributaries, the Petit Jean and the Fourche la Fave; the Red and its tributaries, the Black, the D'Arbonne, the Washita, and the Saline; the Yazoo and its tributaries, the Big Sunflower, the Tallahatchie, and Coldwater; and the Atchafalaya.

The bayous on which a transportation business was done in 1889 were the Bayou Macon, the Bayou Bœuf, the Bayou Courtableau, the Bayou Lafourche, and the Bayou Terrebonne.

EXTENT OF THE MISSISSIPPI VALLEY.

There are no figures at hand from which to give the actual mileage of the streams embraced in Group I, but it is a very conservative estimate to place it at 100,000 miles. The extent of country included in the drainage area of the whole Mississippi valley is something enormous, including over 1,500,000 square miles. In the statistical atlas issued by the census for 1870 the following figures were given as the area of the valley, preceded by the subjoined text:

The Mississippi system is divided into the basin of the Mississippi, which is again divided as Upper and Lower, by a line drawn between Alton and Cairo; the basins of the Ohio, the Missouri, the Red, the Arkansas, and the Rio Grande (the portions of the latter outside the territory of the United States being excluded from the computation as respects both area and population); * * * the Alabama basin, * * * including large portions of Mississippi on the west and of Georgia and Florida on the east * * *; and, last, the basin of central Texas, embracing all the rivers between the Rio Grande and the Bayou Teche.

	AREA, SQUARE MILES.
Basin of the Upper Mississippi	179, 635
Basin of the Lower Mississippi.....	65, 646
Basin of the Ohio.....	207, 111
Basin of the Missouri	527, 680
Basin of the Red.....	92, 721
Basin of the Rio Grande.....	101, 334
Basin of the Arkansas.....	184, 742
The Alabama basin.....	145, 990
The Texas basin	178, 434
Total	1, 683, 303

The population of this area, it may be added, was 19,111,804 in 1870, the figures having risen to 24,298,332 in 1890. This population is found in those states which are immediately contiguous to the streams found in Group I,

which are traversed by them; or in those counties of the states lying immediately within their watershed, as, for instance, those counties of Pennsylvania which constitute the watershed of the Monongahela, Allegheny, and their tributaries. The rims of this great basin extend from the borders of New York to the central ranges of New Mexico, and from the eastern slopes of the Rockies in Montana to the peaks of the Great Smoky mountains of Tennessee.

NAVIGABLE AND UTILIZED WATERS.

The rivers contained in Groups II and III are, after all, those of the most practical importance, and in this respect Table 31 will be found of value. It has been made up in very many particulars from information courteously furnished the Census Office by Major H. M. Adams, of the corps of engineers, United States army, and shows the number of navigable miles of the rivers of the Mississippi valley, as they stood in 1889, and the number of miles over which a transportation business was conducted in the same year. From these parallel columns there can be seen with measurable exactness how many miles of navigable streams had been, so to speak, occupied. Of the navigable length of the great rivers, the Mississippi and Ohio, the whole was of course occupied, but in the various systems it will be seen there were many hundred miles of unemployed water. The navigable miles of the Upper Mississippi system, for instance, numbered 4,486, of which but 4,103 miles were operated on; the Ohio system had 4,406 of navigable miles, of which 4,178 were operated on, while out of the Lower Mississippi system of 6,228 navigable miles but 5,695 were operated on. The total navigable mileage of the valley was 15,410, of which 14,266 were reported on as having been used for purposes of transportation. Many of the unemployed 1,144 miles were probably unavailable during 1889 because of the prevailing low water, to which reference has already been made, while it is also quite within the possibilities that many of the miles of subtributaries were merged within the mileage of the larger streams without being individualized.

CONGRESSIONAL APPROPRIATIONS.

It was for the survey and improvement of these 15,410 miles of navigable rivers that \$76,827,463 has been appropriated by the United States government, less a small amount appropriated for the survey of some minor streams which have since been considered unworthy of improvement. Out of this amount, \$29,273,189 has been appropriated for the improvement of the Upper Mississippi system, which system, it will be remembered, includes not only the Saint Croix, Chippewa, Illinois, and Missouri, but also the subtributaries of these streams. Out of the \$29,273,189, \$12,792,679 was appropriated up to and including 1879, the earliest appropriation being made for the Missouri in 1832. In the 10 years 1880 to 1889, \$13,234,510 was appropriated for the streams of the Upper Mississippi system, while by the act of Congress passed in September, 1890, \$3,246,000 was appropriated.

The total appropriations for the Ohio system amounted to \$21,739,272. Of this amount \$9,396,351 was appropriated before or in 1879, the date of the earliest appropriation being 1827, the portion of the Tennessee below Chattanooga being the beneficiary. The balance was made up of \$10,011,921, appropriated in the decade 1880 to 1889, and \$2,331,000 appropriated by the act of Congress, September, 1890.

The total appropriations for the streams of the Lower Mississippi system were \$24,255,002, of which amount \$4,604,677 was appropriated before or in 1879, the earliest appropriation being made for the survey of the Lower Mississippi itself in 1819. The appropriations for this system for the decade 1880 to 1889 were quite large, standing at \$15,916,125, while the appropriations by the September act of the 1890 Congress amounted to \$3,734,200.

Of course the largest appropriations for any one river were those made for the Father of Waters itself; the sum set aside by government for the survey, improvement, and conservation of the whole Mississippi river being \$42,086,536, which only leaves \$34,740,927 to be divided among all its various affluents, tributaries, and subtributaries. The largest sums out of this remainder were \$6,659,250, which was secured by the Missouri; \$9,156,313, expended on the Ohio; \$4,215,051, given to the Tennessee, and \$2,679,500 appropriated for the Great Kanawha. The only other streams which go above the million-dollar limit are the Illinois, \$1,588,651; the Kentucky, \$1,347,000; the Cumberland, \$1,379,500; the Arkansas, \$1,296,875, and the Red, \$1,733,265.

With respect to the amounts appropriated for the improvement of the Mississippi river, omission should not be made of the explanatory fact that the \$42,086,536 only includes the appropriations up to the close of 1890, and for that portion of the river only which extends from the headwaters to New Orleans, that being the only portion of the stream which is included in this report of valley traffic. In the second session of the Fifty-first Congress an additional \$1,000,000 was appropriated for the valley portion of the river, while for the improvement of the mouth of the river the appropriations have amounted to \$7,597,500. The addition of all these various sums means that for the entire river the appropriations have amounted to \$50,684,036.

It may be added that the engineers of the United States army who have been employed on the various works of improving and maintaining navigation state that \$28,829,490 is still needed to carry out the contemplated projects. Supposing therefore that \$25,000,000 of this amount be granted, it will mean a total appropriation for all the water ways of the Mississippi valley proper of \$102,827,463, and for the Mississippi valley and the Gulf portion of the Mississippi river of \$110,424,963.

In addition to the tables of appropriations, there is here presented a chart showing the same figures in a more graphic form, the plan of construction being a modification of the genealogical tree.

DIAGRAM SHOWING THE MAIN STREAMS, TRIBUTARIES, AND SUBTRIBUTARIES OF THE GREAT FLUVIAL SYSTEM OF THE MISSISSIPPI VALLEY, WHOSE NAVIGABILITY HAS BEEN IMPROVED OR MAINTAINED BY CONGRESSIONAL APPROPRIATIONS; TOGETHER WITH THE SUMS OF MONEY SO APPROPRIATED FROM THE DATE OF EARLIEST APPROPRIATION UP TO AND INCLUDING THE ACT OF SEPTEMBER, 1890.

THE MISSISSIPPI VALLEY.	MAIN STREAMS OR SYSTEMS.	TRIBUTARIES.	SUBTRIBUTARIES.
	THE UPPER MISSISSIPPI.	The Saint Croix..... \$100,500 The Chippewa..... 173,215 The Illinois..... 1,588,650 The Wisconsin (and Fox)..... 2,899,974 The Minnesota..... 127,500 The Cuivre..... 12,000 The Red Cedar..... 1,500 The Galena..... 166,000 The Hennepin canal..... 545,000 All tributaries..... 5,614,339	
	River..... \$16,999,600 Tributaries..... 5,614,339 Total for system 22,613,939		
	THE MISSOURI.	The Osage..... 260,000 The Gasconade..... 46,500 The Yellowstone..... 118,750 All tributaries..... 425,250	
	River..... 6,234,000 Tributaries..... 425,250 Total for system 6,659,250		
	THE OHIO.	The Allegheny..... 252,500 The Monongahela..... \$755,733 Tributaries..... 18,500 The Muskingum..... 449,500 The Little Kanawha..... 211,175 The Great Kanawha..... 2,644,500 Tributaries..... 35,000 The Kentucky..... 1,347,000 The Green..... 135,000 Tributary..... 23,000 The Big Sandy..... 296,500 Tributaries..... 5,000 The Guyandotte..... 16,500 The Cumberland..... 1,343,000 Tributaries..... 36,500 The Licking..... 6,000 The Wabash..... 706,000 Tributary..... 107,000 Beaver river (dam)..... 250,000 The Tradewater..... 16,500 The Tennessee..... 4,006,531 Tributaries..... 208,500 All tributaries..... 12,436,459 Subtributaries..... 435,500	{The Cheat..... \$13,000 {The Buckhannon..... 5,500 {The Elk..... 29,000 {The Gauley..... 6,000 The Rough..... 25,000 {The Tug fork..... 2,500 {The Levisa fork..... 2,500 {Obey river..... 11,500 {The Caney fork..... 25,000 The White, of Indiana..... 107,000 {The Duck..... 13,000 The Clinch..... 35,000 {The Hiwassee..... 34,500 The French Broad..... 121,000 The Little Tennessee..... 5,000 Subtributaries..... 435,500
	River..... 8,867,313 Tributaries..... 12,871,959 Total for system 21,739,272		
THE MISSISSIPPI VALLEY.			
Upper Mississippi system..... \$22,613,939 The Missouri system..... 6,659,250 The Ohio system..... 21,739,272 Lower Mississippi system..... 24,301,290 Whole river, unspecified localities..... 1,295,712 Total for the Mississippi system..... 76,609,463 Red River of the North..... 218,000 Grand total for the valley..... 76,827,463			
	THE LOWER MISSISSIPPI.	The Forked Deer..... 19,500 The Saint Francis (and Cache creek)..... 55,500 The White, of Arkansas..... 366,500 Tributaries..... 95,400 The Big Black..... 15,000 The Big Hatchie..... 32,000 L'Anguille..... 17,000 The Kaskaskia..... 6,000 The Arkansas..... 1,264,375 Tributaries..... 32,500 The Washita..... 351,500 Tributaries..... 62,500 The Little, of Missouri..... 8,000 The Yazoo..... 215,000 Tributaries..... 141,000 The Red river..... 1,725,265 Tributaries..... 8,000 Bayous..... 565,800 Miscellaneous..... 1,342,000 Miscellaneous..... 1,342,000 All tributaries..... 4,075,640 All subtributaries..... 905,200 Early appropriations made for whole river without specified localities..... 1,295,712	{The Fourche la Pave..... 26,500 {Le Petit Jean..... 6,000 {The Little Missouri, Ark..... 20,000 {The Saline..... 21,500 {The Tensas..... 21,000 The Big Sunflower..... 57,000 The Coldwater..... 21,000 Tchula lake..... 15,000 The Yalobusha..... 11,000 The Tallahatchie..... 37,000 {The Little, of Louisiana..... 5,500 {The Caney, via Little..... 2,500 Bartholomew..... 33,000 Black..... 25,000 Boenf..... 31,000 Courtableau..... 31,200 D'Arbonne..... 11,000 Lafourche..... 132,500 Loggy..... 10,000 Pierre..... 13,600 Vidal..... 2,000 Teche..... 100,700 Terrebonne..... 38,800 Cypress..... 127,000 Steels..... 10,000 Subtributaries..... 905,200
	River..... 17,978,450 Tributaries..... 6,322,840 Total for system 24,301,290		
	Whole river..... 1,295,712		

T. J. V.

DEVELOPMENT OF AREAS AND INTERESTS.

In a series of resolutions passed by the board of directors of the merchants' exchange of Saint Louis in 1890 it was stated that with the improvement of that portion of the Mississippi below the metropolis of Missouri the increase of exports via the Gulf had kept steady pace, and that from very small beginnings in 1872 they had increased yearly until in 1889 nearly 20 per cent of the entire exports of corn from the United States was by this route. The freight on corn from Saint Louis to New Orleans has been less than 6 cents per bushel, making the freight to Liverpool via the river route less than 17 cents per bushel, and by the maintenance of this rate the rail rate to the east, both for home consumption and for export, was reduced to the minimum, viz, 12.88 cents per bushel, which it is claimed would not have been secured except for the competition of the river route.

In this connection it is interesting to find that the estimate has been made that with the uninterrupted and unimpeded navigation throughout the Mississippi the business of all the river cities would increase at least tenfold.

INCREASE OF NAVIGABLE MILES.

A very instructive lesson in the laws of compensation is furnished by the statistics of water transportation for the Mississippi valley, for while business has decreased in certain localities because of the sharp competition of the railroads running through adjacent and tributary states, this diminution has been more than counteracted by the extension of territory consequent upon the opening up of new streams. The following facts and figures are an evidence:

The improvement of the Washita has considerably enhanced the value of timber lands bordering the stream, and a line of steamers has been started to build up a trade between Arkadelphia and Camden.

Transportation on the Bayou D'Arbonne is now being done by boats of 1,000 bales of cotton capacity, while before the improvement of the bayou it had been restricted to boats of 500-bale capacity.

Before improvements 3 months was the average duration of the navigable season on the Bayou Bartholomew. That time has since been increased to 6 months. The commerce of this bayou included last year the movement of 3,000 bales of cotton, 100,000 sacks of cotton seed, 300,000 staves, 2,000,000 feet of square oak timber, and 3,000,000 feet of cypress logs, besides large quantities of logs and sundries. Before 1881 it required 14 days to make a trip to the head of navigation; now the time has been diminished to 7.

Before the improvements of the Big Sunflower in 1880 the river was navigable for light boats about 6 months in the year. At the present time it is navigable the year round and for much larger boats. The time length of the round trip, 180 miles, has been diminished from 8 to 5 days. All the country adjacent to the river has been rapidly improved, and plantations are being cleared up all along its banks where a few years ago it was a wilderness.

Prior to 1883 the commerce of the Forked Deer river, Tennessee, consisted chiefly of staves and lumber brought out on flatboats and rafts of saw logs, while about 1 boat in 3 was lost. Now the trip is made with safety and with less cost, while the commerce indicates that the whole country along the river is finding an outlet for its products.

The amount of commerce done on the Red river, Arkansas, prior to 1884, amounted to the movement of about 20,000 tons, while the census report for 1889 shows that on this river, together with its tributaries, there were carried and towed no less than 105,145 tons.

OPENING UP NEW COUNTRY.

Already the country contributing to the commerce of the Arkansas river has considerably increased, and it has been calculated that with the further improvement of this river the vast acreage of Indian territory and the products of the large extent of Kansas will find Fort Smith or Little Rock its eventual water outlet. Commencing at the head of navigation on the Arkansas and then following down through the fertile valley tributary to it, the cities of Wichita, Arkansas city, Fort Smith, Dardanelle, Little Rock, and Pine Bluff, 6 of the largest cities in the valley, which, together with their surrounding counties, have a population of over 400,000 inhabitants, depend very largely for their commercial growth and prosperity on the outlet furnished by this river, which in the census year carried 1,663,817 tons of freight. With the continued improvement of this river freights will be still further reduced, fully another million tons of freight will be transported, and the counties of Butler, Chautauqua, Cowley, Elk, Harper, Kingman, Sedgwick, and Sumner, all in Kansas, will be brought into tribute.

When the work of improvement on the Petit Jean, Arkansas, was begun in 1884, commerce on that stream was confined to 2 or 3 high-water trips a year of a light-draft boat, which brought out from 200 to 300 bales of cotton, while now the exports have increased tenfold, and it is estimated that, with the completion of the work, from 5,000 to 6,000 bales of cotton will be annually moved. This stream is the only outlet to the rich Petit Jean valley, while so far the only method of transportation is by wagon, over 1,000 tons of freight being each year brought into the town of Danville, Arkansas, by that means.

A similar condition of affairs exists on the Fourche la Pave, which drains the valley of the same name, a valley which both in mineral and agricultural products is one of the most extensively rich in the state of Arkansas.

Since 1886 the country bordering on the upper reaches of the White river has begun to contribute to the transportation returns of that stream. A marked improvement is noticeable in the agricultural lands, and those products which used to be hauled across the country in wagons from 50 to 80 miles, to Springfield and other points

on the railroad, are beginning to find a more accessible outlet by way of the river to Batesville and Newport. In the census year the freight transportation on the White river was 86,393 tons.

The amount of commerce done on the Upper Black in 1880, when the work of improvement was begun, amounted to about 18,000 tons, with perhaps about as much more on the lower river, while the census report for 1889 shows a movement (on the Washita and Black) of 93,707 tons. The vast tract of land through which the Black river runs is said to be susceptible of unlimited development, and it is calculated that the further improvement of the Black river would be the means of opening up at least 1,000,000 acres of rich farm land within a limit of 5 miles on each side of the river, land that has a capacity of producing \$25 per acre of cotton or corn.

BUSINESS OF THE TRIBUTARIES.

The commerce of the Tennessee river itself, that is, the commerce originating on that river, can not be said to have increased, but that of its tributaries has been very materially enlarged. The trade of the French Broad, for instance, may be said to have almost come into existence during the 10 years dating from 1880. The commerce has already developed largely, having reached 37,000 tons in 1889, the principal products being marble, logs, lumber, shingles, grain, and general merchandise, while, with the further improvement of the upper waters, the mineral wealth of the mountains lying about the headwaters will seek this river as its highway. The commerce on the Hiwassee, another tributary of the Tennessee, is also increasing, while that of the Clinch has risen from almost nothing to an annual movement of over 60,000 tons during the past 10 years.

Very similar conditions are observable in the case of the tributaries of the Cumberland. The trade of the Cumberland as a river of origin has not perhaps shown any more increase than has the Tennessee, but the commerce of the Caney fork and Obey river has almost entirely come into existence since 1880.

So, too, in the case of the Ohio, Allegheny, Monongahela, and Kentucky. The trade originating on these large streams has not materially, if at all, increased, but new tributaries have been and are being brought into operation year after year, together with the consequent improvement of the adjacent country. The commerce of the Licking, which in the year 1889 amounted to 24,801 tons, may be said to date its activity from 1885, and a similar statement would apply to that of the Buckhannon, Elk, Cheat, and others.

Business on the tributaries of the Upper Mississippi and Missouri has also been marked by a promising extension.

CONDENSED RESULTS.

In looking over the list of rivers which form the great fluvial system of the Mississippi valley, it is found that during the census decade the trade of the valley has received accessions from the opening up of the Licking and Tradewater, tributaries of the Ohio; the Buckhannon and Cheat, tributaries of the Monongahela; the Gauley, a tributary of the Great Kanawha; the Tug fork and Levisa fork, tributaries of the Big Sandy; the Rough and Barren, tributaries of the Green; the South fork, Obey river, and Caney fork, tributaries of the Cumberland; the Duck, Clinch, French Broad, and Little Tennessee, tributaries of the Tennessee; the Forked Deer, Saint Francis, Oache creek, Big Black, Big Hatchie, and Little (of Missouri), tributaries of the Lower Mississippi; the Black (of Missouri) and the Little Red, tributaries of the White; the Petit Jean and Fourche la Pave, tributaries of the Arkansas; the Tehula and the Yalobusha, tributaries of the Yazoo; the Tensas, Macon, and Saline, tributaries of the Washita and Black; the Little (of Louisiana) and the Caney as tributaries of the Red, and a long list of bayous along the Lower Mississippi. The opening up of these streams has meant the addition of 2,840 navigable miles to the valley's total of navigable waters, the development of many thousands of square miles of hitherto unutilized land, the exploitation of rich mines hitherto lying idle, a continuation of low freights which otherwise would have been so high as to seriously embarrass if not practically close the movement of products, and such an addition of traffic that notwithstanding a natural decrease of transportation originating on some rivers the transportation on the fluvial system of the whole valley has received such accessions from these new districts that the freight movement for 1889 stands at 28,293,140 tons against a freight movement of 18,946,522 tons for 1880, an increase for the decade of 9,346,618 tons.

RIVER LANDINGS AND DISTANCES.

This text can not be brought to a better close than by giving a list of the trading points and landings on the chief rivers of the Mississippi valley, and while it would be impossible to present a complete catalogue of these places, the list on the following pages will be found to contain the principal localities. Wherever possible the distance between the points named is given.

STATISTICS OF TRANSPORTATION.

MISSISSIPPI RIVER LANDINGS BETWEEN SAINT LOUIS AND SAINT PAUL (DISTANCES FROM SAINT LOUIS).

	Miles.		Miles.		Miles.
Saint Louis, Missouri.....	0	Rock Island, Illinois.....	329	De Soto, Wisconsin.....	534
Alton, Illinois.....	23	Davenport, Iowa.....	330	Victory, Wisconsin.....	540
Grafton, Illinois.....	39	Hampton, Illinois.....	340	Bad Axe, Wisconsin.....	548
Cap au Gris, Missouri.....	66	Le Claire, Iowa.....	346	Warners landing, Wisconsin.....	553
Hamburg, Illinois.....	88	Port Byron, Illinois.....	347	Brownsville, Minnesota.....	561
Clarksville, Missouri.....	102	Princeton, Iowa.....	352	Lacrosse, Wisconsin.....	571
Louisiana, Missouri.....	112	Cordova, Illinois.....	353	Dresbach, Minnesota.....	579
Hannibal, Missouri.....	140	Comanche, Iowa.....	362	Trempealeau, Wisconsin.....	589
Quincy, Illinois.....	160	Albany, Illinois.....	364	Winona, Minnesota.....	601
Lagrange, Missouri.....	170	Clinton, Iowa.....	369	Fountain city, Wisconsin.....	611
Canton, Missouri.....	177	Fulton, Illinois.....	371	Mount Vernon, Minnesota.....	620
Alexandria, Missouri.....	196	Lyons, Iowa.....	372	Minneiska, Minnesota.....	623
Warsaw, Illinois.....	197	Sabula, Iowa.....	388	Alma, Wisconsin.....	633
Keokuk, Iowa.....	202	Savanna, Illinois.....	390	Wabash, Minnesota.....	642
Montrose, Iowa.....	213	Bellevue, Iowa.....	410	Reads landing, Minnesota.....	645
Nauvoo, Illinois.....	216	Dubuque, Iowa.....	434	North Pepin, Wisconsin.....	649
Fort Madison, Iowa.....	224	East Dubuque, Illinois.....	435	Lake city, Minnesota.....	655
Pontoosac, Illinois.....	231	Wells landing, Iowa.....	448	Wacouta, Minnesota.....	669
Dallas, Illinois.....	234	Cassville, Wisconsin.....	463	Red Wing, Minnesota.....	676
Burlington, Iowa.....	248	Glenhaven, Wisconsin.....	474	Trenton, Wisconsin.....	680
Oquawka, Illinois.....	261	Clayton, Iowa.....	481	Diamond Bluff, Wisconsin.....	686
Keithsburg, Illinois.....	273	Wisconsin river, Wisconsin.....	488	Prescott, Wisconsin.....	698
New Boston, Illinois.....	279	McGregor, Iowa.....	492	Hastings, Minnesota.....	701
Port Louisa, Iowa.....	287	Prairie du Chien, Wisconsin.....	500	Newport, Minnesota.....	720
Muscatine, Iowa.....	301	Lynxville, Wisconsin.....	517	Saint Paul, Minnesota.....	729
Buffalo, Iowa.....	319	Lansing, Iowa.....	529		

MISSISSIPPI RIVER LANDINGS BETWEEN CAIRO AND SAINT LOUIS (DISTANCES FROM CAIRO).

Cairo, Illinois.....	0	Widow Poes, Missouri.....	59	Chester, Illinois.....	120
Birds, Missouri.....	0	Shepherd, jr., Missouri.....	59	Caldwell, Missouri.....	125
Saint Louis, Iron Mountain and South- ern railway, Missouri.....	2	Schatts, Missouri.....	60	Logans, Missouri.....	125
Greenfields, Missouri.....	4	Bainbridge, Missouri.....	61	Roziers, Missouri.....	127
Pond Lily, Missouri.....	8	Hamburg, Illinois.....	61	Saint Marys, Missouri.....	128
Ables Field, Illinois.....	10	Widow Shepherds, Missouri.....	62	Whelans, Illinois.....	129
Greenleafs, Illinois.....	11	Willards, Illinois.....	65	Bogys, Missouri.....	129
Brewers, Missouri.....	13	Moccasinville, Missouri.....	65	Quarry town, Missouri.....	131
Thompsons, Missouri.....	15	Vancils, Missouri.....	66	Stones, Illinois.....	134
Orient Field, Missouri.....	17	Neeleys landing, Missouri.....	70	Kaskaskia, Illinois.....	135
Saladin Field, Missouri.....	19	Crawfords, Missouri.....	75	Saint Genevieve, Missouri.....	140
Haugh's landing, Missouri.....	19	Springs, or Bennetts, Illinois.....	75	Mudds point, Illinois.....	142
Dogtooth island, Illinois.....	19	Preston, or Union point, Illinois.....	76	Little Rock, Missouri.....	142
Brooks point (Simons), Illinois.....	20	Hines landing, Missouri.....	76	Sand depot, Missouri.....	146
Davis, Illinois.....	21	Birmingham, Missouri.....	77	Fort Chartres, Frank Brickleys, Illinois.....	150
Browns, or Berry's, Illinois.....	22	Sauls, Illinois.....	78	Salt point, or Clifton, Missouri.....	150
Prices landing, Missouri.....	24	Grand Tower, Illinois.....	80	Jim Snells, Missouri.....	152
Daniels landing, Missouri.....	25	Wittenburg, Missouri.....	82	Sycamore landing, Illinois.....	153
West Philadelphia, Missouri.....	27	Shipyard, Illinois.....	83	Cliff, or John Briceys, Missouri.....	153
Athertons Goose Island landing, Illinois.....	30	Yonges, Missouri.....	85	Morrisons, Missouri.....	154
Jones, or Davis Store, Illinois.....	31	Gills, Missouri.....	85	Salt lake, Illinois.....	154
Horse Shoe, Athertons, Illinois.....	31	Estells, Illinois.....	88	Walkers, Illinois.....	155
Burnham island, Jones, Illinois.....	34	Burfords, Missouri.....	92	Goodmans, Illinois.....	157
Santa Fe, Illinois.....	35	'76 landing, Missouri.....	93	Rush Tower, or Perrys, Missouri.....	160
Commerce, Missouri.....	35	Wilkinsons island, Illinois.....	96	Forest Home, Illinois.....	164
Uncle Joes, Missouri.....	38	Wilkinsons, Missouri.....	96	Lilleys, Missouri.....	165
Thebes, Illinois.....	40	Baileys, Missouri.....	100	Selina, Missouri.....	165
Doughertys, Missouri.....	40	Wilkinsons, Illinois.....	103	Hugs island, Missouri.....	168
Grays point, Missouri.....	43	Prices, Illinois.....	104	Crystal city, Missouri.....	168
Jones, Missouri.....	46	Ryans, Illinois.....	104	Platin Rock, Missouri.....	169
College farm, Missouri.....	47	McLeans, Illinois.....	106	Knowlens, Illinois.....	171
Cape Girardeau, Missouri.....	50	Excelsior, or Jones, Missouri.....	106	Harrisonville, Illinois.....	172
Wauhoo, Illinois.....	52	Hamiltons, Illinois.....	107	Bushburg, Missouri.....	174
Randals, Illinois.....	54	Rockwood, Illinois.....	110	Sulphur Springs, Missouri.....	176
Hobbs, Missouri.....	55	Nicks landing, Missouri.....	113	Kimmswick, Missouri.....	178
Mintons point, Illinois.....	55	Boise Brule, Missouri.....	114	Kirks landing, Illinois.....	180
Devils island (McClures), Illinois.....	57	Allens, Missouri.....	114	Jim Smiths, or Hurricane point, Illinois.....	180
Kinney point, Missouri.....	57	Waters, Missouri.....	115	Pull Tight, Illinois.....	184
Taylor's, Missouri.....	58	Mancoes, Illinois.....	115	Quarantine, Missouri.....	186
Davidsons, Missouri.....	59	Darwins, Illinois.....	116	Jefferson barracks, Missouri.....	188
		Coles mill, Illinois.....	119	Saint Louis, Missouri.....	200
		Clareyville, Missouri.....	120		

MISSISSIPPI RIVER LANDINGS BETWEEN CAIRO AND NEW ORLEANS (DISTANCES FROM CAIRO).

	Miles.		Miles.		Miles.
Cairo, Illinois	0	Fletchers landing, Arkansas	158	Glendale, Mississippi	366
Norfolk landing, Missouri	7	Elmot landing, Arkansas	160	Williams landing, Arkansas	309
O'Briens, Missouri	14	Plum point, Tennessee	164	Thompsons landing, Mississippi	312
Columbus, Kentucky	21	Osceola, Arkansas	164	Delta, Mississippi	314
Belmont, Missouri	21	Drivers landing, Arkansas	166	Craigs landing, Arkansas	316
Farris landing, Missouri	29	Tanzals landing, Arkansas	167	Westover landing, Arkansas	318
Hickman, Kentucky	36	Fort Pillow, Tennessee	172	Friars point, Mississippi	319
Frenchs point, Kentucky	42	Hatchie landing, Tennessee	173	Old Town landing, Arkansas	324
Saint James bayou, Missouri	44	Fulton, Tennessee	175	Allisons landing, Arkansas	327
La Valles landing, Missouri	47	Falls landing, Arkansas	175	Hulberton, Mississippi	333
Newsoms landing, Missouri	49	Dixie landing, Island 34, Arkansas	178	Modoc landing, Arkansas	334
Lesters landing, Kentucky	53	Jones landing, Island 34, Arkansas	178	Hugheys landing, Arkansas	336
Kentucky and Tennessee state line	55	Mouth of Hatchie river, Tennessee	179	Jacksons Point landing, Mississippi	341
Port Polk, Tennessee	57	Randolph, Tennessee	182	Ludlows landing, Arkansas	346
Stewarts landing, Tennessee	59	Fort Wright, Tennessee	184	Saint Louis landing, Arkansas	349
Tolers landing, Tennessee	61	Richardsons landing, Tennessee	185	Sunflower landing, Mississippi	352
Kentucky and Tennessee state line	63	Prestons landing, Arkansas	186	Robinsonville landing, Mississippi	354
Morrisons landing, Missouri	69	Hampson & Fergusons landing, Arkansas	188	New Hope landing, Mississippi	355
Watsons point, Kentucky	69	Idaho landing, Arkansas	191	Malones landing, Mississippi	356
New Madrid, Missouri	70	Golden Lake landing, Arkansas	191	Lake Charles landing, Mississippi	357
Lower Madrid landing, Missouri	71	Tuckers landing, Arkansas	193	Andersons landing, Mississippi	359
Nolands landing, Kentucky	75	Pecan Point landing, Arkansas	196	Pushmataha landing, Mississippi	359
Toney landing, Missouri	75	Deans landing, Arkansas	197	Ludlows landing, Arkansas	359
Marrs landing, Tennessee	77	Andrews landing, Arkansas	198	Crows landing, Mississippi	365
Darnells landing, Tennessee	78	Thomas landing, Tennessee	201	Beiths landing, Arkansas	366
Point Pleasant, Missouri	79	Corona landing, Arkansas	203	Parkers landing, Mississippi	367
Williams landing, Missouri	80	Randolph point, Tennessee	210	Australia, Mississippi	369
Phillips landing, Missouri	81	Woodwards landing, Arkansas	212	Australia landing, Mississippi	370
Lazells landing, Missouri	82	Eldorado, Arkansas	212	Dyers landing, Mississippi	370
Ruddles landing, Missouri	84	Bradleys landing, Arkansas	214	Dennis landing, Mississippi	372
Tiptonville, Tennessee	85	Hollybush landing, Arkansas	219	Laconia, Arkansas	373
Shaws landing, Tennessee	85	Redmans landing, Arkansas	220	Lulu landing, Arkansas	376
Reelfoot landing, Tennessee	86	Mound city landing, Arkansas	226	Concordia, Mississippi	378
Rileys landing, Tennessee	87	Mouth of Loosahatchie river, Tennessee	229	Maysonia, Mississippi	378
Stewarts landing, Missouri	88	Hopefield, Arkansas	229	Hills landing, Arkansas	380
Batsells landing, Missouri	90	Mouth of Wolf river, Tennessee	229	Frawleys landing, Mississippi	382
Atkinsons landing, Missouri	91	Memphis, Tennessee	230	Henrico landing, Arkansas	383
Stewarts lower landing, Missouri	94	Forrest landing	233	Graddys landing, Arkansas	384
Bass landing, Tennessee	95	Lakes landing, Arkansas	236	McGehees landing, Mississippi	391
D. Phillips landing, Missouri	96	McConnells landing, Arkansas	238	Waxhaw landing, Mississippi	392
Reelfoot landing, Tennessee	98	Rowleys landing, Arkansas	238	Mouth of White river, Arkansas	393
Le Dukes landing, Tennessee	101	Jones landing, Arkansas	238	Terrene, Mississippi	394
Hathaways landing, Tennessee	102	Reeves landing, Arkansas	243	Cumbyville, Arkansas	394
Gayoso, Missouri	105	Harris landing, Arkansas	244	Malones landing, Arkansas	397
Ferris landing, Missouri	108	Horn Lake landing, Tennessee	244	Rosedale landing, Mississippi	398
Caruthersville, Missouri	110	Collins landing, Tennessee	245	Riverton landing, Mississippi	399
Linwood landing, Tennessee	115	Scanlans landing, Arkansas	247	Black Hawk landing, Arkansas	401
Booths Point landing, Tennessee	117	Fairview landing, Arkansas	251	Mouth of Arkansas river, Arkansas	401
Loves landing, Tennessee	120	Pinkney's landing, Arkansas	252	Glen Lou landing, Arkansas	401
Pates landing, Tennessee	121	Cat Island landing, Arkansas	252	Prentiss landing, Mississippi	403
Mitchells landing, Tennessee	122	Norfolk landing, Mississippi	254	Holly Ridge landing, Arkansas	411
Cottonwood Point landing, Missouri	123	Star landing, Mississippi	258	Caulks landing, Arkansas	413
Helms landing, Missouri	123	Hareklerodes landing, Arkansas	259	Nibletts landing, Mississippi	414
Lintdale landing, Missouri	125	Bennetts landing, Mississippi	263	Bolivar landing, Mississippi	416
Midway landing, Missouri	126	Polks landing, Mississippi	264	Buck Ridge landing, Mississippi	418
Missouri and Arkansas state line	127	Commerce landing, Mississippi	269	Kentucky landing, Mississippi	418
Secoy landing, Arkansas	128	Peters landing, Arkansas	271	Home landing, Mississippi	419
Meadows landing, Arkansas	128	Campbells landing, Arkansas	272	Content landing, Mississippi	420
Hoffman landing, Arkansas	129	Ashley Point landing, Arkansas	274	Williams landing, Arkansas	420
Hickmans landing, Arkansas	131	Mhoons landing, Mississippi	275	Franklin landing, Mississippi	422
Wrights Point landing, Arkansas	134	Bordeaux Point landing, Arkansas	278	Catfish Point landing, Mississippi	423
Mouth of Obion river, Tennessee	135	Walnut Bend landing, Arkansas	282	Good Luck landing, Arkansas	423
Hales Point landing, Tennessee	135	Smiths landing, Arkansas	285	Cypress Creek landing, Arkansas	426
Nebraska landing, Tennessee	138	Frederick landing, Mississippi	287	Lucca landing, Arkansas	427
Buckners landing, Arkansas	140	Austin landing, Mississippi	288	Chicora landing, Arkansas	429
Snows landing, Arkansas	140	O. K. landing, Mississippi	289	Chicot, Arkansas	431
Barfield landing, Arkansas	141	Harberts landing, Mississippi	292	Eutaw landing, Mississippi	433
Wards landing, Arkansas	148	Sterling, Arkansas, mouth Saint Francis river	297	Jenkins landing, Mississippi	433
O'Donnells landing, Arkansas	149	Trotter landing, Mississippi	304	Stop landing, Mississippi	434
Ashport, Tennessee	153	Helena, Arkansas	306	Easton landing, Mississippi	434
Mud Point landing, Tennessee	154			Mound landing, Mississippi	435
Johnsons landing, Tennessee	156			Glencoe landing, Mississippi	436

MISSISSIPPI RIVER LANDINGS BETWEEN CAIRO AND NEW ORLEANS (DISTANCES FROM CAIRO)—Continued.

	Miles.		Miles.		Miles.
Delolme landing, Mississippi	436	Sparta, or Duckport landing, Louisiana	589	Tarbert, Mississippi	757
Arkansas city, Arkansas	438	Nebraska landing, Louisiana	591	Car Point landing, Louisiana	760
Offutt's landing, Mississippi	444	Youngs Point landing, Louisiana	593	Angola landing, Louisiana	762
Gaines landing, Arkansas	449	Mouth of Yazoo river, Mississippi	594	Mouth of Red river, Louisiana	762
Point Comfort landing, Arkansas	454	Butler landing, Mississippi	594	Red River landing, Louisiana	763
Woodstock landing, Mississippi	464	Kings Point landing, Mississippi	596	Smiths landing, Louisiana	765
Linwood landing, Arkansas	464	Vicksburg, Mississippi	599	Miles landing, Louisiana	765
Bellevue landing, Arkansas	465	Delta, Louisiana	597	Coal landing, Louisiana	770
Luna landing, Arkansas	467	Bedfords landing, Louisiana	606	Upper Tunica landing, Louisiana	770
Columbia landing, Arkansas	469	Warrenton, Mississippi	606	Lower Tunica landing, Louisiana	771
Chicot landing, Arkansas	473	Oak Bend landing, Mississippi	609	Greenwood landing, Louisiana	775
Barns landing, Mississippi	476	Diamond point, Mississippi	611	Sebastopol, Louisiana	780
Greenville, Mississippi	478	Moore's landing, Louisiana	614	Racourci landing, Louisiana	782
Craigs landing, Arkansas	483	Kelloggs landing, Louisiana	616	New Texas landing, Louisiana	783
Jones landing, Arkansas	485	Upper New Town, Mississippi	618	Morganza landing, Louisiana	786
Vaclusse landing, Arkansas	486	Lower New Town, Louisiana	618	Point Coupee, Louisiana	793
Sunnyside landing, Arkansas	490	Point Pleasant landing, Louisiana	622	Bayou Sara, Louisiana	797
Refuse, Mississippi	491	Blands store, Louisiana	623	Waterloo, Louisiana	803
Lakeport landing, Arkansas	495	Buck Ridge landing, Louisiana	624	Hermitage landing, Louisiana	805
Island 86 landing, Arkansas	501	Brooks landing, Mississippi	626	Port Hickey landing, Louisiana	808
Longwood landing, Mississippi	501	Wilsons Point landing, Louisiana	630	Kelson landing, Louisiana	811
Lake Washington landing, Mississippi	504	Ship Bayou landing, Louisiana	631	Highland landing, Louisiana	813
Grand Lake landing, Arkansas	510	Hard Times landing, Louisiana	633	Lower Springfield landing, Louisiana	816
Leota landing, Mississippi	511	Grand Gulf, Mississippi	636	Grossmans landing, Louisiana	820
Cracraft landing, Arkansas	513	Whitehall landing, Mississippi	637	Barroza landing, Louisiana	821
Sterling landing, Arkansas	515	Hardscrabble, Louisiana	640	Lobdells landing, Louisiana	823
Carolina landing, Mississippi	516	Bruensburg landing, Mississippi	643	Quornor landing, Louisiana	824
Ashton landing, Arkansas	520	Bondurant, Louisiana	643	Point Lace landing, Louisiana	826
Pilchers Point landing, Louisiana	523	Saint Joseph, Louisiana	648	Port Allen, Louisiana	830
Pitmans landing, Louisiana	525	Rodney Ferry landing, Louisiana	651	Baton Rouge, Louisiana	831
Bunchs landing, Louisiana	528	Rodney, Mississippi	652	Cinclare landing, Louisiana	835
Duncansby landing, Mississippi	529	Gilliams landing, Mississippi	654	Missouri landing, Louisiana	837
Skipworth landing, Mississippi	530	Beelers landing, Louisiana	655	Manhac landing, Louisiana	843
Wilsons Point landing, Louisiana	531	Kemps landing, Louisiana	659	Brooksville landing, Louisiana	847
Wilderness landing, Mississippi	531	Waterproof, Louisiana	663	Plaquemine landing, Louisiana	851
Cottonwood landing, Louisiana	534	Durango landing, Louisiana	668	Forlorn Hope landing, Louisiana	856
Homochitta landing, Mississippi	535	Cypress Grove landing, Mississippi	669	Arcadia landing, Louisiana	857
Holly Ridge landing, Mississippi	536	Coles Creek landing, Mississippi	672	Browns landing, Louisiana	859
Vista landing, Louisiana	536	Kings woodyard, Mississippi	674	Dunboine landing, Louisiana	862
Longwood landing, Louisiana	537	Rosedale landing, Louisiana	674	Ophelia landing, Louisiana	862
Oakley landing, Mississippi	537	Habbards landing, Mississippi	675	Bayou Goula landing, Louisiana	864
Reserve landing, Mississippi	537	Mercer landing, Mississippi	677	Belle Grove landing, Louisiana	867
Arlington landing, Louisiana	541	L'Argent, Louisiana	679	Cannon Store landing, Louisiana	868
Ben Lomond landing, Mississippi	541	Mononar landing, Louisiana	680	Hard Times landing, Louisiana	869
Lake Providence, Louisiana	542	Hole in Wall landing, Louisiana	680	Southwood landing, Louisiana	872
Shipland landing, Mississippi	544	Covington landing, Louisiana	680	Woodstock landing, Louisiana	875
Halls landing, Mississippi	552	Gibbons landing, Louisiana	683	Linwood landing, Louisiana	875
Tallula landing, Mississippi	552	Good Hope landing, Louisiana	691	Ashland landing, Louisiana	876
Bass landing, Louisiana	552	Stacy plantation, Louisiana	698	Ascension landing, Louisiana	879
Hays landing, Mississippi	553	Natchez, Mississippi	698	Evan Hall landing, Louisiana	880
Shiloh landing, Mississippi	554	Vidalia, Louisiana	698	Ferry landing, Louisiana	883
Christmas landing, Mississippi	555	Arnolla landing, Louisiana	700	Donaldsonville, Louisiana	883
Cottonwood landing, Mississippi	556	Whitehall landing, Louisiana	701	Bateau, or Larcular landing, Louisiana	885
Arcadia landing, Mississippi	557	Boles Point landing, Louisiana	705	Whitehall landing, Louisiana	891
Wilton landing (upper), Louisiana	559	Morville landing, Louisiana	708	College point, Louisiana	901
Wilton landing (lower), Louisiana	560	Hutchins landing, Mississippi	713	Mount Airy plantation, Louisiana	913
Alsatia landing, Louisiana	561	Avalanche landing, Mississippi	716	Terre Haute plantation, Louisiana	918
Melville landing, Louisiana	562	Fairview landing, Louisiana	725	Bonnet Carre, Louisiana	924
Edgewood landing, Louisiana	563	Jacksons point, Mississippi	735	Hermitage plantation, Louisiana	930
Raleigh landing, Louisiana	564	Ashland landing, Louisiana	735	Prospect plantation, Louisiana	933
Tennessee landing, Mississippi	564	Bougeres landing, Louisiana	735	Hahnville, Louisiana	933
Pecan Grove landing, Louisiana	566	Union Point landing, Louisiana	740	Speranza plantation, Louisiana	935
Chotard landing, Mississippi	570	Kienstia landing, Mississippi	740	Destaban plantation, Louisiana	937
Brunswick landing, Mississippi	573	Black Hawk landing, Louisiana	745	Lone Star plantation, Louisiana	938
Henderson landing, Louisiana	573	Black Hawk Point landing, Louisiana	748	Kennerville, Louisiana	945
Villa Vista landing, Louisiana	574	Stamps landing, Mississippi	748	Twelve Mile point, Louisiana	949
Omega landing, Louisiana	578	Bartlett plantation, Mississippi	750	Jefferson, Louisiana	949
Rose Hill landing, Louisiana	579	Knoxs landing, Louisiana	751	Nine Mile point, Louisiana	953
Millikens Bend landing, Louisiana	581	Fort Adams landing, Mississippi	753	Carrollton, Louisiana	955
Cabin Teale landing, Louisiana	584	Point Breeze, Louisiana	756	Gretna, Louisiana	960
Forest Home landing, Mississippi	584	Langside, Mississippi	756	New Orleans, Louisiana	961
Halpino landing, Mississippi	585				

OHIO RIVER LANDINGS BETWEEN PITTSBURG AND CAIRO (DISTANCES FROM PITTSBURG).

	Miles.		Miles.		Miles.
Pittsburg, Pennsylvania.....	0	Newberry bar, Ohio.....	193	Palestine, Ohio.....	450
Saw Mill run, Pennsylvania.....	2	Big Hockhocking, Ohio.....	198	Buzzards roost, Ohio.....	454
Corks run, Pennsylvania.....	3	Bellville island, Ohio.....	202	Little Miami river, Ohio.....	460
Charlers creek, Pennsylvania.....	3	Murraysville, West Virginia.....	207	Jamestown, Kentucky.....	464
Jacks run, Pennsylvania.....	5	Portland, Ohio.....	214	Cincinnati, Ohio.....	467
Horsetail ripple, Pennsylvania.....	6	Ravenswood, West Virginia.....	219	Sedamsville, Ohio.....	470
Lowries ripple, Pennsylvania.....	7	Goose island, Ohio.....	228	McCulloms bar, Ohio.....	472
Duffs bar, Pennsylvania.....	8	Letart falls, Ohio.....	234	Andersons ferry, Ohio.....	474
Merrimans ripple, Pennsylvania.....	10	Grahams station, West Virginia.....	239	Rapid run, Ohio.....	477
Whites ripple, Pennsylvania.....	11	Hartford city, West Virginia.....	244	Taylorsville, Kentucky.....	478
Deadmans island, Pennsylvania.....	14	Pomeroy, Ohio.....	249	Muddy creek, Ohio.....	480
Flathertys run, Pennsylvania.....	15	Eight Mile island, Ohio.....	255	Chamberlains, Kentucky.....	482
Big Sewickley creek, Pennsylvania.....	16	Campaign creek, Ohio.....	260	Indian creek, Ohio.....	482
Little Sewickley creek, Pennsylvania.....	17	Big Kanawha river, West Virginia.....	264	Big Miami, Ohio and Indiana boundary.....	487
Logstown bar, Pennsylvania.....	19	Gallipolis, Ohio.....	267	Lawrenceburg, Indiana.....	489
Baden, Pennsylvania.....	21	Carrior ripple, Ohio.....	271	Petersburg landing, Kentucky.....	491
Freedom, Pennsylvania.....	24	Raccoon island, Ohio.....	273	Aurora, Indiana.....	493
Lacocks bar, Pennsylvania.....	25	Chambersburg, Ohio.....	278	Loughreys creek, Indiana.....	495
Big Beaver river, Pennsylvania.....	25	Bladensburg, Ohio.....	279	Kirbys rock, Indiana.....	496
Vanport, Pennsylvania.....	28	Eighteen Mile creek, Ohio.....	283	Loughreys island, Indiana.....	498
Raccoon bar, Pennsylvania.....	29	Little Guyandotte river, West Virginia.....	285	Rising Sun, Indiana.....	502
Raccoon creek, Pennsylvania.....	30	Green Bottom ripple, Ohio.....	290	Arnolds creek, Indiana.....	505
Montgomery island, Pennsylvania.....	32	Millersport and Federal creek, Ohio.....	293	Gunpowder creek, Kentucky.....	510
Safe Harbor, Pennsylvania.....	32	Haskellville, Ohio.....	295	Big Boone creek, Kentucky.....	513
Shippensport, Pennsylvania.....	35	Dogham bar, Ohio.....	299	Goose creek, Indiana.....	514
Potts run, Pennsylvania.....	37	Big Guyandotte river, West Virginia.....	303	Patriot, Indiana.....	515
Little Beaver river, Pennsylvania.....	40	Symms creek, Ohio.....	306	Sugar creek, Kentucky.....	519
Boundary line, Pennsylvania and Ohio.....	41	Buffalo creek bar, Ohio.....	308	Bryants creek, Indiana.....	523
Liverpool, Ohio.....	44	Burlington, Ohio.....	311	Warsaw, Kentucky.....	524
Wellsville, Ohio.....	48	Ceredo, West Virginia.....	312	Florence, Indiana.....	525
Yellow creek, Ohio.....	50	Catlettsburg, Kentucky.....	315	Craigs creek, Indiana.....	526
Tumblers run, West Virginia.....	53	Sheridan coal works, Ohio.....	318	Storns creek, Indiana.....	527
New Cumberland, West Virginia.....	56	Ashland, Kentucky.....	320	Loglick creek, Indiana.....	529
Kings creek, Ohio.....	60	Ironton, Ohio.....	325	Vevay island, Indiana.....	532
Cables eddy, Ohio.....	64	Hanging Rock, Ohio.....	328	Vevay, Indiana, and Ghent, Kentucky.....	533
Steubenville, Ohio.....	68	Union landing, Ohio.....	330	Indian creek, Kentucky.....	536
Wellsburg, West Virginia.....	74	Greenupsburg, Kentucky.....	334	Craigs bar, Indiana.....	537
Beech Bottom bar, Ohio.....	78	Burks point, Ohio.....	341	Carrolton, Kentucky.....	541
Warrenton, Ohio.....	81	Pine creek, Ohio.....	345	Notchlick creek, Kentucky.....	544
Pike island, Ohio.....	83	Sciotoville, Ohio.....	347	Captain J. Armstrongs, Indiana.....	544
Burlington, Ohio.....	86	Tiger creek, Kentucky.....	351	Locust creek, Kentucky.....	545
Martinsville, Ohio.....	89	Portsmouth, Ohio.....	354	Indian, Indiana.....	546
Wheeling (creek), West Virginia.....	90	Turkey creek, Ohio.....	359	Eagle Hollow, Indiana.....	551
McMahons Creek bar, Ohio.....	94	Quincy, Kentucky.....	364	Lonesome Hollow, Indiana.....	551
Kates rock, West Virginia.....	97	Rock Port, Kentucky.....	368	Madison, Indiana.....	553
Middle of Little Grave Creek bar, Ohio.....	100	Buena Vista, Ohio.....	371	Clifty creek, Indiana.....	556
Moundsville, West Virginia.....	101	Rockville, Ohio.....	372	Hanover landing, Indiana.....	558
Captina creek, Ohio.....	109	Vanceburg, Kentucky.....	375	Reeds landing, Indiana.....	562
Fish creek, West Virginia.....	113	Rome, Ohio.....	381	New London, Indiana.....	563
Sunfish creek, Ohio.....	117	Brush creek, Ohio.....	385	Big Solady creek, Indiana.....	565
Proctors run, West Virginia.....	121	Concord, Kentucky.....	387	Corn creek, Kentucky.....	567
Fishing creek, West Virginia.....	127	Wrightsville, Ohio.....	389	Bethlehem, Indiana.....	570
Sardis, Ohio.....	130	Manchester, Ohio.....	394	Westport, Kentucky.....	576
Whittons house, Ohio.....	134	Cabin creek, Kentucky.....	400	Eighteen Mile island, Indiana.....	578
Sisterville, West Virginia.....	136	Brooks bar, Ohio.....	402	Herculaneum, Kentucky.....	581
Matamoras, Ohio.....	141	Maysville, Kentucky.....	406	Fourteen Mile creek, Indiana.....	586
Petticoat bar, Ohio.....	147	Charleston bar, Ohio.....	412	Charleston landing, Indiana.....	587
Reas run, West Virginia.....	151	Ripley, Ohio.....	414	Twelve Mile island, Indiana.....	589
Saint Marys, West Virginia.....	155	Levana, or Dover, Ohio.....	416	Utica, Indiana.....	592
Newport, Ohio.....	156	Straight creek, Ohio.....	418	Six Mile island, Indiana.....	593
Cow creek, West Virginia.....	161	Higginsport, Ohio.....	422	Louisville, Kentucky.....	596
Carpenters bar, Ohio.....	166	Augusta, Kentucky.....	424	Jeffersonville, Indiana.....	596
Marietta, Ohio.....	171	Utopia, Ohio.....	427	Silver creek, Indiana.....	601
Briscoe run, West Virginia.....	177	Bull creek, Ohio.....	428	New Albany, Indiana.....	603
Cole island, Ohio.....	181	Chilo, Ohio.....	431	Middle creek, Indiana.....	608
Kanawha river, Parkersburg, West Virginia.....	184	Neville, Ohio.....	435	Hughes bar, Indiana.....	609
Blennerhassets island, foot, West Virginia.....	189	Fosters landing, Kentucky.....	435	Knob creek, Indiana.....	612
Hockingport, Ohio.....	191	Moscow, Ohio.....	439	Christopher crossing, Kentucky.....	617
		Point Pleasant, Ohio.....	442	Salt river, Kentucky.....	624
		New Richmond, Ohio.....	446	New Boston, Kentucky.....	628

OHIO RIVER LANDINGS BETWEEN PITTSBURG AND CAIRO (DISTANCES FROM PITTSBURG)—Continued.

	Miles.		Miles.		Miles.
Otter creek, Kentucky.....	631	Tell city, Indiana.....	720	Raleigh, Kentucky.....	843
Tobacco landing, Kentucky.....	635	Troy, Indiana.....	724	Shawneetown, Illinois.....	848
Brandenburg, Kentucky.....	640	Lewisport, Kentucky.....	731	Coal banks, Illinois.....	850
Mauport, Indiana.....	643	Grandview, Indiana.....	736	Saline river, Illinois.....	857
Amsterdam, Indiana.....	650	Honey creek, Indiana.....	739	Shotwells coal bank, Illinois.....	859
Head of Upper Blue River island, Indiana.....		Rockport, Indiana.....	741	Caseyville, Kentucky.....	861
Leavenworth, Indiana.....	654	Upper Yellow Bank island, head, Indiana.....		Treadwater river, Kentucky.....	862
Fredonia, Indiana.....	661		745	Weston, Kentucky.....	865
Schooner point, Indiana.....	664	Owensboro, Kentucky.....	749	Fords ferry, Kentucky.....	866
Hawkins landing, Kentucky.....	668	Bonharbor, Kentucky.....	752	Cave in Rock, Illinois.....	869
Peckenpaws landing, Kentucky.....	669	Enterprise, Indiana.....	756	Head Big Hurricane island, Kentucky.....	873
Wolf creek, Kentucky.....	671	Point Isabel, Indiana.....	758	Elizabethtown, Illinois.....	877
Little Blue river, Indiana.....	673	French island, Kentucky.....	760	Roseclair, Illinois.....	880
Alton, Indiana.....	673	Pigeon creek, Indiana.....	766	Carrsville, Kentucky.....	882
Reno, Indiana.....	677	Cypress creek, Indiana.....	768	Golconda, Illinois.....	890
Hatfields house, Kentucky.....	679	Newburg, Indiana.....	770	Prior island, Kentucky.....	893
Concordia, Kentucky.....	681	Green river, Kentucky.....	775	Head Sisters island, Kentucky.....	896
Davis landing, Indiana.....	682	Evansville, Indiana.....	783	Bay city, Illinois.....	899
Oil creek, Indiana.....	686	Henderson, Kentucky.....	795	Head Stewarts island, Illinois.....	901
Derby, Indiana.....	687	Henderson, Indiana.....	796	Head Dry island, Illinois.....	906
Yellow Bank creek, Kentucky.....	690	West Franklin, Indiana.....	808	Smithland, Kentucky.....	908
Shenautts Reach, foot, Kentucky.....	692	Diamond island, foot, Indiana.....	812	Pull Tight, or West Liberty, Kentucky.....	910
Steavens port, Kentucky.....	695	Mount Vernon, Indiana.....	819	Paducah, Kentucky.....	920
Bear creek, Kentucky.....	697	Slim island, head, Indiana.....	822	Brooklyn, Illinois.....	923
Holts bar, Kentucky.....	698	Slim island, foot, Indiana.....	826	Metropolis, Illinois.....	929
Gregorys, Kentucky.....	703	Louisiana rocks, Kentucky.....	831	Hillermans, Illinois.....	939
Cloverport, Kentucky.....	705	Uniontown, Kentucky.....	833	Caledonia, Illinois.....	951
Faucetts creek, Indiana.....	706	Lower Highland rocks, Kentucky.....	834	Mound city, Illinois.....	959
Nillston creek, Indiana.....	711	Head Wabash island, Indiana.....	836	Cairo, mouth of Ohio river, Illinois.....	967
Rock island, Kentucky.....	713	Wabash river, Illinois and Indiana boundary.....	838		
Hawsville, Kentucky.....	717	Fort Wabash island, Indiana.....	841		

MISSOURI RIVER LANDINGS BETWEEN SAINT LOUIS AND FORT BENTON (DISTANCES FROM SAINT LOUIS).

Saint Louis, Missouri.....	0	Grand River agency, South Dakota.....	1,479	Round Butte, Montana.....	2,304
Mouth of Missouri, Missouri.....	20	Standing Rock agency, South Dakota.....	1,535	Trover Point, Montana.....	2,344
Jefferson city, Missouri.....	164	Fort Yates, North Dakota.....	1,535	Mussellshell river, Montana.....	2,387
Glasgow, Missouri.....	212	Fort Rice, North Dakota.....	1,569	Fort Hawley, Montana.....	2,424
Lexington, Missouri.....	337	Fort Lincoln, North Dakota.....	1,609	Carroll, Montana.....	2,446
Kansas city, Missouri.....	405	Bismarck, North Dakota.....	1,614	Little Rocky, Montana.....	2,461
Leavenworth, Kansas.....	438	Mandan, North Dakota.....	1,617	Harriets island, Montana.....	2,473
Saint Joseph, Missouri.....	501	Fort Stevenson, North Dakota.....	1,724	Two Calf island, Montana.....	2,488
Omaha, Nebraska.....	686	Port Berthold, North Dakota.....	1,749	Cow island, Montana.....	2,508
Sioux city, Iowa.....	861	White Earth river, North Dakota.....	1,869	Buds rapids, Montana.....	2,523
Vermilion, Kansas.....	953	Fort Buford, North Dakota.....	1,994	Dauphins rapids, Montana.....	2,538
Yankton, South Dakota.....	1,006	Mouth of Yellowstone, North Dakota.....	1,996	Fort Claggett, Montana.....	2,561
Fort Randall, South Dakota.....	1,102	Mouth of Little Muddy, Montana.....	2,016	Drowned Mans rapids, Montana.....	2,563
Brule city, South Dakota.....	1,192	Mouth of Big Muddy, Montana.....	2,046	Arrowhead, Montana.....	2,577
Brule agency, South Dakota.....	1,223	Mouth of Poplar creek, Montana.....	2,096	Steamboat rock, Montana.....	2,581
Fort Hale, South Dakota.....	1,223	Spread Eagle, Montana.....	2,121	Hole in the Wall, Montana.....	2,587
Fort Thompson, South Dakota.....	1,230	Wolf Creek agency, Montana.....	2,147	Citadel rock, Montana.....	2,590
Head of Big Bend, South Dakota.....	1,270	Porcupine creek, Montana.....	2,177	Eagle creek, Montana.....	2,598
Old Fort Pierre, South Dakota.....	1,330	Milk river, Montana.....	2,202	Coal banks, Montana.....	2,613
Black Hills landing, South Dakota.....	1,330	Fort Copelin, Montana.....	2,212	Fort Assinaboine landing, Montana.....	2,613
Fort Sully, South Dakota.....	1,359	Fort Peck, Montana.....	2,227	Mouth of Marias river, Montana.....	2,637
Cheyenne agency, South Dakota.....	1,371	Bouches Grave, Montana.....	2,267	Fort Benton, Montana.....	2,663
Fort Bennett, South Dakota.....	1,371				

YELLOWSTONE RIVER LANDINGS BETWEEN FORT BUFORD AND LITTLE BIG HORN (DISTANCES FROM FORT BUFORD).

Fort Buford, North Dakota.....	0	Tongue river, Montana.....	237	Bighorn, Montana.....	348
Glendive, Montana.....	148	Fort Keogh, Montana.....	237	Little Bighorn, Montana.....	398
Powder river, Montana.....	200	Rosebud, Montana.....	274		

STATISTICS OF TRANSPORTATION ON THE RIVERS OF THE MISSISSIPPI VALLEY.

TABLE 1.—EQUIPMENT.

NUMBER, TONNAGE, AND VALUE OF ALL STEAMERS AND UNRIGGED CRAFT (OVER 5 TONS) OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	TOTAL.			STEAMERS.			UNRIGGED.		
	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Total for Mississippi valley.....	7,453	3,393,379.89	\$15,335,005	1,114	210,771.89	\$10,539,251	6,339	3,182,608.00	\$4,795,754
Upper Mississippi.....	473	190,663.21	1,699,387	188	24,978.21	1,485,369	285	165,685.00	214,018
Saint Croix.....	26	11,258.35	110,000	15	1,258.35	99,000	11	10,000.00	11,000
Chippewa.....	1	108.00	7,000	1	108.00	7,000			
Illinois.....	9	1,860.25	80,200	9	1,860.25	80,200			
Missouri, Osage, and Gasconade.....	104	9,657.84	240,405	52	4,759.84	200,700	52	4,898.00	30,705
Total for Upper Mississippi system.	613	213,547.65	2,136,992	265	32,964.65	1,881,269	348	180,583.00	255,723
Ohio.....	4,808	2,440,881.62	6,937,513	380	85,035.62	4,099,177	4,488	2,355,840.00	2,858,336
Allegheny.....	32	3,055.84	63,400	6	715.84	53,000	26	2,340.00	10,400
Monongahela.....	158	22,887.15	449,700	48	6,234.15	419,600	110	16,653.00	30,100
Muskingum.....	79	8,370.79	53,515	7	567.79	25,050	72	7,803.00	28,465
Little Kanawha.....	53	4,072.18	30,000	5	228.18	18,000	48	4,744.00	12,000
Great Kanawha.....	893	412,306.13	645,038	21	2,386.13	123,333	872	409,980.00	521,705
Big Sandy.....	17	3,937.67	44,000	8	787.67	40,000	9	3,150.00	4,000
Kentucky.....	8	539.31	22,100	5	374.31	21,000	3	165.00	1,100
Green.....	5	316.68	13,500	5	316.68	13,500			
Wabash.....	3	297.00	10,000	3	297.00	10,000			
Cumberland.....	37	4,805.57	113,600	17	2,935.57	109,300	20	1,870.00	4,300
Tennessee.....	92	18,038.89	293,975	32	7,316.89	200,750	60	10,722.00	33,225
Total for Ohio system.....	6,245	2,920,468.83	8,696,341	537	107,195.83	5,192,710	5,708	2,813,273.00	3,503,631
Lower Mississippi.....	515	237,986.07	4,153,622	265	62,476.07	3,152,372	250	175,510.00	1,001,250
White.....	6	1,269.71	45,100	5	1,229.71	45,000	1	40.00	100
Arkansas.....	22	2,408.73	67,600	15	2,098.73	66,200	7	310.00	1,400
Yazoo.....	20	3,079.68	79,450	11	1,409.68	62,000	9	1,670.00	17,450
Washita.....	3	994.52	45,000	3	994.52	45,000			
Red.....	14	2,218.88	85,700	9	1,968.88	80,700	5	250.00	5,000
Total for Lower Mississippi system.	580	247,957.59	4,476,472	308	70,177.59	3,451,272	272	177,780.00	1,025,200
Red River of the North.....	15	11,405.82	25,200	4	433.82	14,000	11	10,972.00	11,200

STATISTICS OF TRANSPORTATION.

TABLE 2.—EQUIPMENT BY CLASSES.

NUMBER, TONNAGE, AND VALUE OF ALL VESSELS (OVER 5 TONS), BY CLASSES, AND OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	Classes.	Number of vessels in each class.	Tonnage.	Value.
Total for Mississippi valley.....		7,453	3,393,379.89	\$15,335,005
UPPER MISSISSIPPI SYSTEM.				
Upper Mississippi.....	Passenger and freight.....	23	5,732.91	281,700
	Towing.....	77	9,736.51	621,800
	Ferry.....	24	2,144.39	170,200
	Harbor.....	25	994.26	62,250
	Miscellaneous.....	10	1,999.75	139,800
	No traffic report.....	29	4,370.39	209,619
	Unrigged.....	285	165,685.00	214,018
Total.....		473	190,663.21	1,609,387
Saint Croix.....	Towing.....	10	1,129.82	88,500
	Ferry.....	1	26.98	3,000
	Harbor.....	4	101.55	7,500
	Unrigged.....	11	10,000.00	11,000
Total.....		26	11,258.35	110,000
Chippewa.....	Towing.....	1	108.00	7,000
Illinois.....	Passenger and freight.....	7	1,811.80	79,200
	Ferry.....	2	48.45	1,000
Total.....		9	1,860.25	80,200
Missouri, Osage, and Gasconade.....	Passenger and freight.....	15	2,458.85	70,300
	Towing and harbor.....	10	573.37	41,700
	Ferry.....	24	1,685.49	94,100
	Unrigged.....	52	4,898.00	30,705
	No traffic report.....	3	42.13	3,600
Total.....		104	9,657.84	240,405
Total for Upper Mississippi system.....		613	213,547.65	2,136,992
OHIO SYSTEM.				
Ohio.....	Passenger and freight.....	85	32,688.82	1,209,825
	Towing.....	114	26,708.08	1,680,000
	Ferry.....	54	10,918.00	350,250
	Harbor.....	48	4,275.11	301,000
	Miscellaneous.....	25	2,978.83	163,200
	Unrigged.....	4,488	2,355,846.00	2,858,336
	No traffic report.....	54	7,466.78	388,302
Total.....		4,868	2,440,881.62	6,937,513
Allegheny.....	Passenger and freight.....	6	715.84	53,000
	Unrigged.....	26	2,340.00	10,400
Total.....		32	3,055.84	63,400
Monongahela.....	Passenger and freight.....	8	1,471.48	75,700
	Towing.....	25	3,441.97	246,700
	Ferry.....	3	263.39	15,000
	Miscellaneous.....	12	1,057.31	82,200
	Unrigged.....	110	16,653.00	30,100
Total.....		158	22,887.15	449,700
Muskingum.....	Passenger and freight.....	4	333.35	16,750
	Towing.....	2	219.35	7,000
	Harbor.....	1	15.09	1,300
	Unrigged.....	72	7,803.00	28,465
Total.....		79	8,370.79	53,515
Little Kanawha.....	Passenger and freight.....	2	143.56	10,000
	Towing.....	1	34.93	4,000
	Harbor.....	1	25.64	3,000
	Miscellaneous.....	1	24.05	1,000
	Unrigged.....	48	4,744.00	12,000
Total.....		53	4,972.18	30,000

RIVERS OF THE MISSISSIPPI VALLEY.

427

TABLE 2.—EQUIPMENT BY CLASSES—Continued.

NUMBER, TONNAGE, AND VALUE OF ALL VESSELS (OVER 5 TONS), BY CLASSES, AND OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

RIVERS.	Classes.	Number of vessels in each class.	Tonnage.	Value.
OHIO SYSTEM—Continued.				
Ohio—Continued.				
Great Kanawha.....	Passenger and freight.....	5	427.55	\$23,500
	Towing.....	4	692.66	39,333
	Harbor.....	6	822.49	41,000
	Ferry.....	2	102.47	8,000
	Miscellaneous.....	2	58.78	3,500
	Unrigged.....	872	409,980.00	321,705
	No traffic report.....	2	282.18	8,000
Total.....		893	412,366.13	645,038
Big Sandy.....	Passenger and freight.....	5	443.65	16,000
	Harbor.....	3	344.02	24,000
	Unrigged.....	9	3,150.00	4,000
Total.....		17	3,937.67	44,000
Kentucky.....	Passenger and freight.....	3	246.52	15,000
	Towing.....	1	77.88	4,000
	Unrigged.....	3	105.00	1,100
	No traffic report.....	1	49.91	2,000
Total.....		8	539.31	22,100
Green.....	Passenger and freight.....	5	316.68	13,500
Wabash.....	Passenger and freight.....	2	243.33	7,500
	No traffic report.....	1	53.67	2,500
Total.....		3	297.00	10,000
Cumberland.....	Passenger and freight.....	13	2,631.48	100,800
	Towing.....	4	304.09	8,500
	Unrigged.....	20	1,870.00	4,300
Total.....		37	4,805.57	113,600
Tennessee.....	Passenger and freight.....	23	5,851.24	210,500
	Towing.....	6	1,183.71	46,250
	Ferry.....	2	259.67	3,000
	Unrigged.....	60	10,722.00	33,225
	No traffic report.....	1	22.27	1,000
Total.....		92	18,038.89	293,975
Total for Ohio system.....		6,215	2,920,468.83	8,696,341
LOWER MISSISSIPPI SYSTEM.				
Lower Mississippi.....	Passenger and freight.....	74	31,898.33	1,186,300
	Towing.....	35	9,065.18	627,600
	Harbor.....	53	12,403.80	588,300
	Ferry.....	45	2,831.74	392,200
	Miscellaneous.....	11	599.93	70,350
	Unrigged.....	250	175,510.00	1,001,250
	No traffic report.....	47	5,077.09	287,622
Total.....		515	237,986.07	4,153,622
White.....	Passenger and freight.....	5	1,229.71	45,000
	Unrigged.....	1	40.00	100
Total.....		6	1,269.71	45,100
Arkansas.....	Passenger and freight.....	9	1,785.91	46,700
	Ferry.....	6	312.82	19,500
	Unrigged.....	7	310.00	1,400
Total.....		22	2,408.73	67,600
Yazoo.....	Passenger and freight.....	11	1,409.68	62,000
	Unrigged.....	9	1,670.00	17,450
Total.....		20	3,079.68	79,450

STATISTICS OF TRANSPORTATION.

TABLE 2.—EQUIPMENT BY CLASSES—Continued.

NUMBER, TONNAGE, AND VALUE OF ALL VESSELS (OVER 5 TONS), BY CLASSES, AND OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

RIVERS.	Classes.	Number of vessels in each class.	Tonnage.	Value.
LOWER MISSISSIPPI SYSTEM—Continued.				
Lower Mississippi—Continued.				
Washita	Passenger and freight	3	994. 52	\$45. 000
Red	Passenger and freight	9	1, 968. 88	80. 700
	Unrigged	5	250. 00	5. 000
Total		14	2, 218. 88	85. 700
Total for Lower Mississippi system		580	247, 957. 59	4, 476, 472
RED RIVER OF THE NORTH.				
Red River of the North	Freight	3	411. 17	12, 500
	Unrigged	11	10, 972. 00	11. 200
	No traffic report	1	22. 05	1. 500
Total		15	11, 405. 82	25. 200

RIVERS OF THE MISSISSIPPI VALLEY.

429

TABLE 3.—EQUIPMENT BY TONNAGE GROUPS.

NUMBER AND TONNAGE OF ALL STEAMERS (OVER 5 TONS) DOCUMENTED IN CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY IN 1889, GIVEN BY TONNAGE GROUPS FOR EACH DISTRICT. (a)

CUSTOMS DISTRICTS.	TOTAL.		5 TO 50 TONS.		50 TO 100 TONS.		100 TO 200 TONS.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.
Total	1,114	209,826.07	270	7,933.26	261	19,344.92	295	42,601.42
New Orleans, Louisiana	126	19,248.58	35	1,190.40	37	2,667.20	27	3,822.59
Natchez, Mississippi	4	592.35	1	44.49	1	72.71	1	186.03
Vicksburg, Mississippi	30	2,875.90	10	257.90	11	815.67	5	634.36
Memphis, Tennessee	71	12,113.76	24	645.00	16	1,144.57	12	1,808.04
Chattanooga, Tennessee	22	3,966.09	5	180.21	1	63.01	8	1,224.13
Paducah, Kentucky	53	8,781.24	17	573.29	9	643.73	11	1,518.43
Louisville, Kentucky	52	11,937.92	9	286.67	13	935.54	15	2,266.05
Saint Louis, Missouri	115	42,827.04	23	646.72	19	1,525.42	12	1,695.14
Kansas city, Missouri	16	1,781.35	4	110.01	7	547.58	4	613.33
Saint Joseph, Missouri	6	340.53	3	84.56	2	153.53	1	102.44
Omaha, Nebraska	13	1,329.55	4	70.51	6	370.62		
Burlington, Iowa	43	5,059.39	10	366.43	11	786.81	18	2,881.38
Dubuque, Iowa	28	6,355.26	6	129.83	6	448.61	7	1,091.18
Minnesota (b)	46	5,213.56	16	409.66	6	447.47	18	2,603.01
Lacrosse, Wisconsin	47	3,884.03	16	441.95	15	1,187.58	16	2,254.50
Galena, Illinois	27	3,129.60	4	130.06	5	366.20	18	2,633.34
Evansville, Indiana	54	6,950.76	23	565.31	12	904.84	10	1,392.77
Cincinnati, Ohio	115	31,406.87	21	601.05	24	1,713.40	30	4,412.29
Wheeling, West Virginia	94	9,768.97	22	703.87	36	2,667.50	27	3,884.94
Pittsburg, Pennsylvania	152	32,263.23	17	486.25	24	1,852.93	55	7,577.47

CUSTOMS DISTRICTS.	200 TO 300 TONS.		300 TO 400 TONS.		400 TO 500 TONS.		500 TO 1,000 TONS.		1,000 TO 2,500 TONS.	
	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.	Number.	Tons.
Total	92	22,746.92	74	25,481.02	28	12,528.88	71	49,025.68	23	30,163.97
New Orleans, Louisiana	12	2,918.50	7	2,485.90	2	966.07	4	3,129.85	2	2,058.98
Natchez, Mississippi	1	289.12								
Vicksburg, Mississippi	2	473.91	2	694.15						
Memphis, Tennessee	5	1,190.59	5	1,715.58	2	934.93	6	3,615.34	1	1,050.71
Chattanooga, Tennessee	4	912.32	3	1,021.08			1	565.34		
Paducah, Kentucky	5	1,203.66	7	2,319.73	1	467.17	3	2,055.23		
Louisville, Kentucky	2	491.78	7	2,417.12	1	438.17	4	3,054.25	1	2,048.34
Saint Louis, Missouri	8	2,002.36	12	4,376.21	12	5,287.10	18	11,879.81	11	15,414.28
Kansas city, Missouri							1	510.43		
Saint Joseph, Missouri										
Omaha, Nebraska	2	536.11	1	352.31						
Burlington, Iowa	3	712.02	1	312.75						
Dubuque, Iowa	3	723.95	2	673.57	1	456.96	2	1,340.05	1	1,491.11
Minnesota	3	739.88	3	1,013.54						
Lacrosse, Wisconsin										
Galena, Illinois										
Evansville, Indiana	4	927.95	1	319.46			4	2,840.43		
Cincinnati, Ohio	10	2,512.52	6	1,950.16	4	1,682.61	13	10,443.29	7	8,691.55
Wheeling, West Virginia	7	1,789.27	2	693.39						
Pittsburg, Pennsylvania	21	5,322.98	15	5,136.07	5	2,295.87	15	9,591.60		

a Compiled from reports furnished by commissioner of navigation.

b Comprising the ports of Saint Vincent and Saint Paul.

STATISTICS OF TRANSPORTATION.

TABLE 4.—INCOME AND EXPENDITURE.

GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL STEAMERS (OVER 5 TONS)
OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889. (a)

RIVERS.	Gross earnings.	Expenses.	Net earnings.
Total for Mississippi valley	\$16,337,533	\$12,000,342	\$3,737,191
Upper Mississippi	1,994,786	1,403,746	591,040
Salut Croix	169,184	93,703	75,481
Chippewa	18,244	9,844	8,400
Illinois	135,801	114,047	21,754
Missouri, Osage, and Gasconade	294,470	229,477	64,993
Total for Upper Mississippi system	2,612,485	1,850,817	761,668
Ohio	5,070,654	4,000,777	1,069,877
Allegheny	20,630	18,449	2,181
Monongahela	490,930	398,861	92,069
Muskingum	55,482	40,589	14,893
Little Kanawha	30,921	17,343	13,578
Great Kanawha	193,006	139,677	53,329
Big Sandy	94,918	69,879	25,039
Kentucky	58,821	33,806	24,955
Green	31,889	27,154	4,735
Wabash	42,320	22,140	20,180
Cumberland	205,636	170,939	34,697
Tennessee	400,806	330,893	69,913
Total for Ohio system	6,702,013	5,270,567	1,431,446
Lower Mississippi	6,236,310	4,849,939	1,386,371
White	100,697	82,443	18,254
Arkansas	86,383	56,549	29,834
Yazoo	144,068	125,469	18,599
Washita	125,180	103,220	21,960
Red	324,736	257,092	67,644
Total for Lower Mississippi system	7,017,374	5,474,712	1,542,662
Red River of the North	5,661	4,246	1,415

a The expense accounts of the barges, flats, and other unrigged are included, wherever practicable, in those of the towing steamers.

RIVERS OF THE MISSISSIPPI VALLEY.

431

TABLE 5.—INCOME AND EXPENDITURE BY CLASSES.

GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL STEAMERS, BY CLASSES, (a) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	Classes.	Number of vessels in each class.	Gross earnings.	Expenses.	Net earnings.
Total for Mississippi valley.....		975	\$16,337,533	\$12,000,342	\$3,737,191
UPPER MISSISSIPPI SYSTEM.					
Upper Mississippi.....	Passenger and freight.....	23	463,872	380,375	83,497
	Towing.....	77	1,240,850	812,401	437,449
	Ferry.....	24	131,528	92,078	39,450
	Harbor.....	25	102,147	71,503	30,644
	Miscellaneous.....	10	47,389	47,389	
Total.....		159	1,904,786	1,403,746	501,040
Saint Croix.....	Towing.....	10	154,597	83,481	71,116
	Ferry.....	1	1,485	1,050	435
	Harbor.....	4	13,102	9,172	3,930
Total.....		15	169,184	93,703	75,481
Chippewa.....	Towing.....	1	18,244	9,844	8,400
Illinois.....	Passenger and freight.....	7	133,764	112,321	21,443
	Ferry.....	2	2,037	1,726	311
Total.....		9	135,801	114,047	21,754
Missouri, Osage, and Gasconade.....	Passenger and freight.....	15	129,620	106,288	23,332
	Ferry.....	24	102,483	72,772	29,721
	Towing and harbor.....	10	62,357	50,417	11,940
Total.....		49	294,470	229,477	64,993
Total for Upper Mississippi system.....		233	2,612,485	1,850,817	761,668
OHIO SYSTEM.					
Ohio.....	Passenger and freight.....	85	2,168,215	1,850,248	317,967
	Towing.....	114	2,168,020	1,657,136	510,884
	Ferry.....	54	431,267	246,893	184,374
	Harbor.....	48	254,934	198,282	56,652
	Miscellaneous.....	25	48,218	48,218	
Total.....		326	5,070,634	4,000,777	1,069,857
Allegheny.....	Passenger and freight.....	6	20,630	18,449	2,181
Monongahela.....	Passenger and freight.....	8	130,664	107,179	23,485
	Towing.....	25	306,810	233,447	73,363
	Ferry.....	3	11,238	10,017	1,221
	Miscellaneous.....	12	48,218	48,218	
Total.....		48	496,930	398,861	98,069
Muskingum.....	Passenger and freight.....	4	47,571	35,254	12,317
	Towing.....	2	7,361	4,915	2,446
	Harbor.....	1	550	420	130
Total.....		7	55,482	40,589	14,893
Little Kanawha.....	Passenger and freight.....	2	24,471	12,075	12,396
	Towing.....	1	2,000	1,668	332
	Harbor.....	1	3,450	2,600	850
	Miscellaneous.....	1	1,000	1,000	
Total.....		5	30,921	17,343	13,578
Great Kanawha.....	Passenger and freight.....	5	46,339	36,298	10,051
	Towing.....	4	47,809	31,938	15,871
	Ferry.....	2	13,283	6,965	6,318
	Harbor.....	6	82,575	61,486	21,089
	Miscellaneous.....	2	3,000	3,000	
Total.....		19	193,006	139,677	53,329
Big Sandy.....	Passenger and freight.....	5	62,075	46,572	15,503
	Harbor.....	3	32,843	23,307	9,536
Total.....		8	94,918	69,879	25,039

a The expense accounts of the barges, flats, and other unrigged are included, wherever practicable, in those of the towing steamers.

STATISTICS OF TRANSPORTATION.

TABLE 5.—INCOME AND EXPENDITURE BY CLASSES—Continued.

GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF ALL STEAMERS, BY CLASSES, OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

RIVERS.	Classes.	Number of vessels in each class.	Gross earnings.	Expenses.	Net earnings.
OHIO SYSTEM—Continued.					
Ohio—Continued.					
Kentucky	Passenger and freight	3	\$40,910	\$23,145	\$17,765
	Towing	1	17,911	10,721	7,190
Total		4	58,821	33,866	24,955
Green	Passenger and freight	5	31,889	27,154	4,735
Wabash	Passenger and freight	2	42,320	22,140	20,180
Cumberland	Passenger and freight	13	179,688	153,412	26,276
	Towing	4	25,948	17,527	8,421
Total		17	205,636	170,939	34,697
Tennessee	Passenger and freight	23	331,345	289,699	41,646
	Towing	6	37,328	28,160	9,168
	Ferry	2	32,133	13,034	19,099
Total		31	400,806	330,893	69,913
Total for Ohio system		478	6,702,013	5,270,567	1,431,446
LOWER MISSISSIPPI SYSTEM.					
Lower Mississippi	Passenger and freight	74	3,040,334	2,742,406	297,928
	Towing	35	1,938,513	1,157,068	781,445
	Ferry	45	442,169	362,431	79,738
	Harbor	53	801,479	574,219	227,260
	Miscellaneous	11	13,815	13,815	
Total		218	6,236,310	4,849,939	1,386,371
White	Passenger and freight	5	100,697	82,443	18,254
Arkansas	Passenger and freight	9	57,199	44,881	12,318
	Ferry	6	29,184	11,668	17,516
Total		15	86,983	56,549	29,834
Yazoo	Passenger and freight	11	144,068	125,469	18,599
Washita	Passenger and freight	3	125,180	103,220	21,960
Red	Passenger and freight	9	324,736	257,092	67,644
Total for Lower Mississippi system		261	7,017,374	5,474,712	1,542,662
RED RIVER OF THE NORTH.					
Total	Freight	3	5,661	4,246	1,415

RIVERS OF THE MISSISSIPPI VALLEY.

433

TABLE 6.—EMPLOYEES.

NUMBER OF OFFICERS AND MEN MAKING UP THE TOTALS OF THE ORDINARY CREWS OF ALL VESSELS, BY CLASSES, IN OPERATION ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1899. TOGETHER WITH THE TOTAL WAGES PAID DURING THAT YEAR.

RIVERS.	Classes.	Number of vessels in each class.	Number making up totals of ordinary crews.	Total wages paid during the year.	RIVERS.	Classes.	Number of vessels in each class.	Number making up totals of ordinary crews.	Total wages paid during the year.
Total for Mississippi valley.		975	15,996	\$5,338,862	OHIO SYSTEM—Cont'd.				
UPPER MISSISSIPPI SYSTEM.					Ohio—Continued.				
Upper Mississippi	Passenger and freight.	23	576	143,333	Great Kanawha	Passenger and freight.	5	62	\$19,410
	Towing	77	1,239	385,364		Towing	4	63	16,919
	Ferry	24	125	53,505		Ferry	2	8	3,420
	Harbor	25	117	37,075		Harbor	6	72	23,070
	Miscellaneous	10	111	20,206		Miscellaneous	2	5	2,366
Total		159	2,168	639,483	Total		19	210	65,185
Saint Croix	Towing	10	159	41,601	Big Sandy	Passenger and freight.	5	99	30,485
	Ferry	1	2	700		Harbor	3	42	13,440
	Harbor	4	15	5,287	Total		8	141	43,925
Total		15	176	47,588	Kentucky	Passenger and freight.	3	66	12,220
Chippewa	Towing	1	16	5,046		Towing	1	15	4,110
Illinois	Passenger and freight.	7	162	35,661	Total		4	81	16,330
	Ferry	2	4	1,100	Green	Passenger and freight.	5	43	5,416
Total		9	166	36,761	Wabash	Passenger and freight.	2	50	13,020
Missouri, Osage, and Gasconade.	Passenger and freight.	15	243	41,794	Cumberland	Passenger and freight.	13	440	73,345
	Ferry	24	104	47,352		Towing	4	25	11,085
	Towing and harbor	10	70	24,995	Total		17	465	84,430
Total		49	417	114,141	Tennessee	Passenger and freight.	23	600	140,537
Total for Upper Mississippi system.		233	2,943	843,019		Towing	6	63	13,398
OHIO SYSTEM.						Ferry	2	15	10,800
Ohio	Passenger and freight.	85	2,550	688,407	Total		31	687	164,735
	Towing	114	2,069	910,946	Total for Ohio system.		478	7,063	2,545,625
	Ferry	54	266	142,126	LOWER MISSISSIPPI SYSTEM.				
	Harbor	48	462	152,497	Lower Mississippi	Passenger and freight.	74	2,968	1,032,012
	Miscellaneous	25	68	23,869		Towing	35	720	249,927
Total		326	5,424	1,917,845		Ferry	45	337	183,972
Allegheny	Passenger and freight.	6	31	10,670		Harbor	53	301	176,573
Monongahela	Passenger and freight.	8	81	45,448		Miscellaneous	11	17	12,232
	Towing	25	287	120,408	Total		218	4,343	1,654,716
	Ferry	3	12	7,485	White	Passenger and freight.	5	119	41,997
	Miscellaneous	12	42	22,680	Arkansas	Passenger and freight.	9	141	27,753
Total		48	422	196,021		Ferry	6	20	6,216
Muskingum	Passenger and freight.	4	67	17,305	Total		15	161	33,909
	Towing	2	11	3,406	Yazoo	Passenger and freight.	11	255	60,754
	Harbor	1	3	240	Washita	Passenger and freight.	3	144	43,756
Total		7	81	20,951	Red	Passenger and freight.	9	323	113,349
Little Kanawha	Passenger and freight.	2	18	4,682	Total for Lower Mississippi system.		261	5,345	1,948,541
	Towing	1	5	790	RED RIVER OF THE NORTH.				
	Harbor	1	4	1,085	Total	Freight	3	45	1,677
	Miscellaneous	1	1	540					
Total		5	28	7,097					

STATISTICS OF TRANSPORTATION.

TABLE 7.—TRAFFIC—ALL OPERATING CRAFT.

PASSENGERS CARRIED AND TONS OF FREIGHT MOVED BY ALL CRAFT AND MILES TRAVELED BY ALL STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS AND THEIR TRIBUTARIES.	PASSENGERS CARRIED.			Freight moved, in tons.	Miles traveled by all steamers.
	Total.	Regular and excursion.	Ferry.		
Grand total for Mississippi valley.....	10,858,894	2,384,248	8,474,646	29,405,046	7,316,545
Upper Mississippi.....	1,478,085	285,676	1,192,409	4,496,421	1,101,990
Saint Croix.....	12,304	5304	12,000	846,816	67,990
Chippewa.....	4,441	64,441		325,477	12,000
Illinois.....	50,368	21,768	28,600	180,264	83,436
Missouri, Osage, and Gasconade.....	276,536	26,561	249,975	1,119,362	159,239
Total for Upper Mississippi system.....	1,821,734	338,750	1,482,984	6,958,340	1,424,655
Ohio.....	5,115,806	1,191,732	3,924,074	7,770,565	2,696,020
Allegheny.....	5,319	5,319		365,946	2,040
Monongahela.....	261,387	130,537	130,850	3,294,932	130,898
Muskingum.....	37,681	37,681		10,281	27,055
Little Kanawha.....	9,451	9,451		115,657	14,740
Great Kanawha.....	92,124	53,599	38,525	1,145,202	59,680
Big Sandy.....	11,000	11,000		286,483	47,350
Kentucky.....	9,550	9,550		256,950	12,588
Green.....	11,200	11,200		819,278	10,300
Wabash.....	180	180		93,178	12,700
Cumberland.....	19,160	19,160		974,316	144,968
Tennessee.....	930,285	27,185	903,100	909,078	420,894
Total for Ohio system.....	6,503,143	1,506,504	4,996,549	16,041,866	3,579,233
Lower Mississippi.....	2,451,315	518,267	1,933,048	24,374,761	1,826,254
White.....	4,183	4,183		86,393	68,786
Arkansas.....	64,716	2,651	62,065	1,663,817	61,689
Yazoo.....	5,391	5,391		77,380	121,216
Washita.....	1,204	1,204		93,707	60,828
Red.....	7,208	7,208		105,145	172,800
Total for Lower Mississippi system.....	2,534,017	538,904	1,995,113	26,401,203	2,311,573
Red River of the North.....				3,637	1,064

^a Respectively, 32,993,792 tons, 7,963,507 tons, and 9,989,949 tons, including the coal and lumber which were brought into and carried on the Lower Mississippi from the Upper Mississippi and Ohio rivers. (See page 46.)

^b These were excursion passengers carried on towboats.

RIVERS OF THE MISSISSIPPI VALLEY.

435

TABLE 8.—TRAFFIC—FREIGHT CARRIED AND TOWED.

FREIGHT CARRIED BY PASSENGER AND FREIGHT STEAMERS AND ON FERRIES AND FREIGHT TOWED BY PASSENGER AND FREIGHT STEAMERS AND TOWBOATS OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	Total tons freight carried and towed.	FREIGHT CARRIED.			FREIGHT TOWED.		
		Total tons carried.	On passenger and freight steamers.	On ferry steamers.	Total tons towed.	By passenger and freight steamers.	By towboats.
Total for Mississippi valley.....	29,405,046	10,345,504	9,233,598	1,111,906	19,059,542	1,926,200	17,133,342
Upper Mississippi.....	4,486,421	1,057,873	518,816	539,057	3,428,548		3,428,548
Saint Croix.....	846,816	800		800	846,016		846,016
Chippewa.....	325,477				325,477		325,477
Illinois.....	180,264	135,572	135,572		44,692	44,692	
Missouri, Osage, and Gasconade.....	1,119,362	957,379	799,344	158,035	161,983		161,983
Total for Upper Mississippi system.....	6,958,340	2,151,624	1,453,732	697,892	4,806,716	44,692	4,762,024
Ohio.....	7,770,565	2,559,446	2,314,548	244,898	5,211,119		5,211,119
Allegheny.....	365,946	115,696	115,696		250,250	250,250	
Monongahela.....	3,294,932	151,725	151,725		3,143,207		3,143,207
Muskingum.....	10,281	10,281	10,281				
Little Kanawha.....	115,657	2,968	2,968		112,689		112,689
Great Kanawha.....	1,145,202	112,838	112,838		1,032,364		1,032,364
Big Sandy.....	286,483	156,074	156,074		130,409	130,409	
Kentucky.....	256,950	53,047	53,047		203,903		203,903
Green.....	819,278	172,508	172,508		646,770	646,770	
Wabash.....	93,178	35,378	35,378		57,800	57,800	
Cumberland.....	974,316	217,534	217,534		756,782		756,782
Tennessee.....	909,078	219,170	219,170		689,908		689,908
Total for Ohio system.....	16,041,866	2,806,665	3,561,767	244,898	12,235,201	1,065,229	11,149,972
Lower Mississippi.....	4,374,761	3,153,415	2,985,399	168,016	1,221,346		1,221,346
White.....	86,393	22,537	22,537		63,856	63,856	
Arkansas.....	1,663,817	1,020,023	1,018,923	1,100	643,794	643,794	
Yazoo.....	77,380	37,138	37,138		40,242	40,242	
Washita.....	93,707	64,597	64,597		29,110	29,110	
Red.....	105,145	89,505	89,505		15,640	15,640	
Total for Lower Mississippi system.....	6,401,203	4,387,215	4,218,099	169,116	2,013,988	792,642	1,221,346
Red River of the North.....	3,637				3,637	3,637	

STATISTICS OF TRANSPORTATION.

TABLE 9.—FREIGHT TRAFFIC BY COMMODITIES.

PRINCIPAL COMMODITIES OF THE FREIGHT, IN TONS, CARRIED ON PASSENGER AND FREIGHT STEAMERS (OVER 5 TONS) OPERATING, ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	Total.	PRODUCTS OF AGRICULTURE.								PRODUCTS OF MINES.				
		Wheat.	Corn.	Other grain.	Mill products.	Cotton.	Tobacco.	Fruit and vegetables.	Hay.	Bituminous coal.	Iron ore.	Other ore.	Stone and gravel.	Clay and sand.
Total Mississippi valley	9,233,598	836,386	311,598	88,949	89,992	808,135	27,707	41,748	33,944	313	894	450	21,932	939
Upper Mississippi	518,816	23,000			630									
Illinois	135,572	18,000			747					300				
Missouri, Osage, and Gasconade.	799,344	136,000	50,000		9,275									
Total Upper Mississippi system.	1,453,732	177,000	50,000		10,652					300				
Ohio	2,314,548	124,405			620	9,412					894			
Allegheny	115,696							21	890					
Monongahela	151,725													
Muskingum	10,281	1,693												
Little Kanawha	2,968													
Great Kanawha	112,838				2,577									
Big Sandy	156,074		423					2,511						
Kentucky	53,047			5,949	1,503		2,783		4,407					
Green	172,508			1,431	773		4,723	501	319					
Wabash	35,378	1,811	15,849	99									1,734	
Cumberland	217,534			20,983	3,628		10,201		895					
Tennessee	219,170	5,477	17,964	5,351	2,267	10,138	10,000	18,657	2,440	13			20,178	939
Total Ohio system	3,561,767	133,386	34,256	33,813	11,368	19,550	27,707	21,600	8,951	13	894		21,932	939
Lower Mississippi	2,985,399	420,000	77,543	33,332	9,462	716,503			504					
White	22,537					7,403						450		
Arkansas	1,018,923	100,000	110,282	21,804	57,655	35,003		20,058	24,489					
Yazoo	37,138		22,865											
Washita	64,597		16,652											
Red	89,505	6,000			855	29,676								
Total Lower Mississippi system.	4,218,099	526,000	227,342	55,136	67,972	788,585		20,058	24,993			450		

RIVERS.	OTHER PRODUCTS.			MANUFACTURES.								Merchandise, etc.
	Ice.	Lumber and forest products.	Animal products.	Petroleum and other oils.	Sugar.	Iron, pig and bloom.	Other iron manufactures.	Bar and sheet metal.	Cement, brick, and lime.	All other manufactures.	Cotton seed and oil.	
Total Mississippi valley	10	547,545	170,518	3,534	90,844	5,275	92,110	112	1,265	48,536	388,684	5,622,158
Upper Mississippi			2,350									492,830
Illinois			2,094									114,431
Missouri, Osage, and Gasconade.			6,175									597,894
Total Upper Mississippi system.			10,625									1,205,155
Ohio					57,881		54,297			29,113		2,037,926
Allegheny		97,360		2,450			300			2,025		12,659
Monongahela		30,806	1,407				2,177					117,535
Muskingum		475										8,113
Little Kanawha				678								2,290
Great Kanawha									213			110,046
Big Sandy		12,541	676							34		139,889
Kentucky		9,547	2,350				1,903			5,051		19,554
Green		152,541	501				98		90	2,596		8,933
Wabash		9,500								271		6,094
Cumberland		146,398	5,623			3,006				5,028		21,772
Tennessee	10	44,732	1,048	406	1,015	2,269	50	112	962	4,416	1,800	68,886
Total Ohio system	10	503,900	11,605	3,534	58,896	5,275	58,825	112	1,265	48,536	1,800	2,553,480
Lower Mississippi					30,828						271,809	1,425,418
White											2,338	12,346
Arkansas		40,784	148,125				33,285				85,784	341,654
Yazoo		2,861	65								8,020	1,337
Washita			98								5,068	42,799
Red					1,120						13,875	37,979
Total Lower Mississippi system.		43,645	148,288		31,948		33,285				396,684	1,863,513

RIVERS OF THE MISSISSIPPI VALLEY.

437

TABLE 10.—FREIGHT TRAFFIC (IN TONS), BY COMMODITIES, ON UNRIGGED CRAFT.

RIVERS.	Total.	PRODUCTS OF AGRICULTURE.						PRODUCTS OF MINES.			
		Wheat.	Corn.	Other grain.	Mill products.	Cotton.	Hay.	Bituminous coal.	Iron ore.	Stone and gravel.	Clay and sand.
Total for Mississippi valley.....	19,059,542	3,595	471,203	3,787	580	87,607	57,635	8,527,115	573,896	156,699	141,464
Upper Mississippi.....	3,428,548							10,624			
Saint Croix.....	846,016										
Chippewa.....	325,477										
Illinois.....	44,602							2,000			
Missouri, Osage, and Gasconade.....	161,983						5,000	51,162	1,500		
Total for Upper Mississippi system.....	4,806,716						5,000	63,786	1,500		
Ohio.....	5,211,119	595				9,110	635	4,018,787	10,762		
Allegheny.....	250,250									19,050	51,500
Monongahela.....	3,143,207							3,059,418	33,386		
Little Kanawha.....	112,689							1,100			
Great Kanawha.....	1,032,364							941,446			
Big Sandy.....	130,400										
Kentucky.....	203,903			1,042						12,861	
Green.....	646,770							45,904		788	
Wabash.....	57,800									4,000	
Cumberland.....	756,782										89,964
Tennessee.....	689,908					2,404	5,000	35,875	528,248		
Total for Ohio system.....	12,235,201	595		1,042		11,514	5,635	8,102,530	572,396	36,699	141,464
Lower Mississippi.....	1,221,346		421,203	2,725		66,955	5,000	183,848			
White.....	63,856										
Arkansas.....	643,794		50,000				42,000	165,888		120,000	
Yazoo.....	40,242					9,138					
Washita.....	29,110										
Red.....	15,640							11,063			
Total for Lower Mississippi system.....	2,013,988		471,203	2,725		76,093	47,000	360,799		120,000	
Red River of the North.....	3,637	3,000			580						

RIVERS.	OTHER PRODUCTS.		MANUFACTURES.					Merchandise, etc.
	Ice.	Lumber and forest products.	Sugar.	Iron (pig and bloom).	Cement, brick, and lime.	All other manufactures.	Cotton seed and oil.	
Total for Mississippi valley.....	91,000	8,652,696	100,000	2,500	928	26,050	6,104	156,703
Upper Mississippi.....	45,050	3,372,674						
Saint Croix.....		846,016						
Chippewa.....		325,477						
Illinois.....	41,950	742						
Missouri, Osage, and Gasconade.....		104,321						
Total for Upper Mississippi system.....	87,000	4,649,430						
Ohio.....		1,131,755				26,050		13,425
Allegheny.....		179,500			200			
Monongahela.....		50,403						
Little Kanawha.....		109,079						2,510
Great Kanawha.....		80,468			650			9,800
Big Sandy.....		130,409						
Kentucky.....		190,000						
Green.....		600,000			78			
Wabash.....		53,800						
Cumberland.....		664,318		2,500				
Tennessee.....		118,381						
Total for Ohio system.....		3,308,113		2,500	928	26,050		25,735
Lower Mississippi.....		310,654	100,000					130,961
White.....		63,856						
Arkansas.....	4,000	261,906						
Yazoo.....		25,000					6,104	
Washita.....		29,110						
Red.....		4,577						
Total for Lower Mississippi system.....	4,000	695,103	100,000				6,104	130,961
Red River of the North.....		50						7

STATISTICS OF TRANSPORTATION.

TABLE 11.—FREIGHT TRAFFIC BY COMMODITIES.

PRINCIPAL COMMODITIES OF THE FREIGHT, IN TONS, MOVED BY FERRYBOATS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	Total.	PRODUCTS OF AGRICULTURE.						
		Wheat.	Corn.	Other grain.	Mill products.	Cotton.	Tobacco.	Fruit and vegetables.
Total Mississippi valley	1,111,906	8,461	4,087	2,872	323	550	252	17,862
Upper Mississippi	539,057		1,000	2,870				700
Saint Croix	800							
Missouri, Osage, and Gasconade	158,035	5,658	502		323		252	62
Total Upper Mississippi system	697,892	5,658	1,502	2,870	323		252	762
Ohio	244,898	3	2,585	2				
Lower Mississippi	168,016	2,800				550		16,000
Arkansas	1,100							1,100
Total Lower Mississippi system	169,116	2,800				550		17,100

RIVERS.	Bituminous coal.	OTHER PRODUCTS.		MANUFACTURES.					Merchandise, etc.
		Lumber.	Animal products.	Petroleum and other oils.	Sugar.	Bar and sheet metal.	Cement, brick, and lime.	All other manufactures.	
Total Mississippi valley	11,801	100,400	6,858	4	29	1	182	10	958,214
Upper Mississippi	11,800	100,315	1,144				160	10	421,058
Saint Croix									800
Missouri, Osage, and Gasconade		63	5,249	4	29		18		145,875
Total Upper Mississippi system	11,800	100,378	6,393	4	29		178	10	567,733
Ohio	1	22	165			1	4		242,115
Lower Mississippi			300						148,306
Arkansas									
Total Lower Mississippi system			300						148,306

TABLE 12.—FREIGHT TRAFFIC BY COMMODITIES.

PRINCIPAL COMMODITIES OF THE TOTAL FREIGHT, IN TONS, MOVED BY FREIGHT AND PASSENGER STEAMERS, FERRYBOATS, AND UNRIGGED CRAFT (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	Total.	PRODUCTS OF AGRICULTURE.								PRODUCTS OF MINES.				
		Wheat.	Corn.	Other grain.	Mill products.	Cotton.	Tobacco.	Fruit and vegetables.	Hay.	Bituminous coal.	Iron ore.	Other ore.	Stone and gravel.	Clay and sand.
Total Mississippi valley.....	29,405,046	848,442	786,888	95,588	90,895	896,292	27,959	59,610	91,579	8,539,229	574,790	450	178,631	142,423
Upper Mississippi.....	4,486,421	23,000	1,030	2,870	630			700		22,424				
Saint Croix.....	846,816													
Chippewa.....	325,477													
Illinois.....	180,264	18,000			747					2,300				
Missouri, Osage, and Gasconade.....	1,119,362	141,658	50,502		9,598		252	62	5,000	51,162	1,500			
Total for Upper Mississippi system.....	6,958,340	182,658	51,502	2,870	10,975		252	762	5,000	75,886	1,500			
Ohio.....	7,770,565	125,003	2,585	2	620	18,522			635	4,018,788	11,656			
Allegheny.....	365,946							21	890				19,050	51,500
Monongahela.....	3,294,932									3,059,418	33,386			
Muskingum.....	10,281	1,693												
Little Kanawha.....	115,657									1,100				
Great Kanawha.....	1,145,202				2,577					941,446				
Big Sandy.....	286,483		423					2,511						
Kentucky.....	256,950			6,991	1,593		2,783		4,407				12,861	
Green.....	819,278			1,431	773		4,723	501	319	45,904			788	
Wabash.....	93,178	1,811	15,849	99									5,754	
Cumberland.....	974,316			20,983	3,628		10,201		895					89,964
Tennessee.....	909,078	5,477	17,984	5,351	2,267	12,542	10,000	18,657	7,440	35,888	528,248		20,178	959
Total for Ohio system.....	16,041,866	133,984	36,841	34,857	11,368	31,064	27,707	21,690	14,586	8,102,544	573,290		58,631	142,423
Lower Mississippi.....	4,374,761	422,800	498,746	36,057	9,462	784,008		16,000	5,504	183,848				
White.....	86,393					7,403						450		
Arkansas.....	1,063,817	100,000	160,282	21,804	57,655	35,003		21,158	66,489	165,888			120,000	
Yazoo.....	77,380		22,865			9,138								
Washita.....	93,707		16,652											
Red.....	105,145	6,000			855	29,676				11,063				
Total for Lower Mississippi system.....	6,401,203	528,800	698,545	57,861	67,972	865,228		37,158	71,993	360,799		450	120,000	
Red River of the North.....	3,637	3,000			580									

STATEMENT OF FREIGHT CARRIED AND TOWED ON THE LOWER MISSISSIPPI, INCLUDING COAL AND LUMBER FROM UPPER MISSISSIPPI AND OHIO RIVER SYSTEMS. (a)

Lower Mississippi.....	7,963,507	422,800	498,746	36,057	9,462	784,008		16,000	5,504	2,288,629				
Total Lower Mississippi system.....	9,989,949	528,800	698,545	57,861	67,972	865,228		37,158	71,993	2,465,480		450	120,000	
Total Mississippi valley.....	32,993,792	848,442	786,888	95,588	90,895	896,292	27,959	59,610	91,579	10,643,910	574,790	450	178,631	142,423

a See page 15.

STATISTICS OF TRANSPORTATION.

TABLE 12.—FREIGHT TRAFFIC BY COMMODITIES—Continued.

PRINCIPAL COMMODITIES OF THE TOTAL FREIGHT, IN TONS, MOVED BY FREIGHT AND PASSENGER STEAMERS, FERRYBOATS, AND UNRIGGED CRAFT (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889—Continued.

RIVERS.	OTHER PRODUCTS.			MANUFACTURES.								Merchandise, etc.
	Ice.	Lumber and forest products.	Animal products.	Petroleum and other oils.	Sugar.	Iron (pig and bloom).	Other iron manufactures.	Bar and sheet metal.	Cement, brick, and lime.	All other manufactures.	Cotton seed and cotton-seed oil.	
Total Mississippi valley...	91,010	9,300,641	177,376	3,538	190,873	7,775	92,110	113	2,375	74,596	394,788	6,737,075
Upper Mississippi.....	45,050	3,473,189	3,500						160	10		913,866
Saint Croix.....		846,016										800
Chippewa.....		325,477										
Illinois.....	41,950	742	2,094									114,431
Missouri, Osage, and Gasconade.....		104,384	11,424	4	29				18			743,769
Total.....	87,000	4,749,808	17,018	4	29				178	10		1,772,886
Ohio.....		1,131,777	165		57,881		54,297	1	4	56,163		2,293,466
Allegheny.....		276,860		2,450			300		200	2,025		12,650
Monongahela.....		81,209	1,407				2,177					117,335
Muskingum.....		475										8,113
Little Kanawha.....		109,079		878								4,800
Great Kanawha.....		80,468							863			119,848
Big Sandy.....		142,950	676							34		139,880
Kentucky.....		199,547	2,350				1,903			5,051		19,554
Green.....		752,541	501				98		168	2,598		8,933
Wabash.....		63,300								271		6,004
Cumberland.....		810,716	5,623			5,506				5,028		21,772
Tennessee.....	10	163,113	1,048	406	1,015	2,260	50	112	962	4,416	1,800	68,896
Total.....	10	3,812,035	11,770	3,534	58,896	7,775	58,825	113	2,197	74,596	1,800	2,621,340
Lower Mississippi.....		310,654	300		130,828						271,809	1,704,745
White.....		63,856									2,338	12,346
Arkansas.....	4,000	302,690	148,125				33,285				85,784	341,654
Yazoo.....		27,861	65								14,124	3,327
Washita.....		29,110	98								5,058	42,789
Red.....		4,577			1,120						13,875	37,979
Total.....	4,000	738,748	148,588		131,948		33,285				392,968	2,142,840
Red River of the North.....		50										7

STATEMENT OF FREIGHT CARRIED AND TOWED ON THE LOWER MISSISSIPPI, INCLUDING COAL AND LUMBER FROM UPPER MISSISSIPPI AND OHIO RIVER SYSTEMS—Continued.

Lower Mississippi.....		1,794,719	300		130,828						271,809	1,704,745
Total Lower Mississippi system.....	4,000	2,222,813	148,588		131,948		33,285				392,968	2,142,840
Total Mississippi valley.....	91,010	10,784,706	177,376	3,538	190,873	7,775	92,110	113	2,375	74,596	394,788	6,737,075

RIVERS OF THE MISSISSIPPI VALLEY.

441

TABLE 13.—GENERAL ACCOUNT—PASSENGER AND FREIGHT STEAMERS.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, AND EMPLOYEES, WITH WAGES PAID, OF PASSENGER AND FREIGHT STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	EQUIPMENT.			TRAFFIC.		INCOME AND EXPENDITURE.			EMPLOYEES. (a)	
	Number.	Tonnage.	Value.	Tons of freight moved.	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid.
Total for Mississippi valley.....	320	95,215.26	\$3,661,475	11,159,798 9,233,598 b1,926,200	2,384,248	\$7,651,248	\$6,580,356	\$1,070,892	9,101	\$2,603,031
Upper Mississippi.....	23	5,732.91	281,700	518,816	285,676	463,872	380,375	83,497	576	143,333
Saint Croix.....					c304					
Chippewa.....					c4,441					
• Illinois.....	7	1,811.80	79,200	{ 135,572 b44,692 }	{ 21,768 }	{ 133,764 }	{ 112,321 }	{ 21,443 }	162	35,661
Missouri, Osage, and Gasconade.....	15	2,458.85	70,300	{ 799,344 }	{ 26,561 }	{ 129,620 }	{ 106,288 }	{ 23,332 }	243	41,794
Total for Upper Mississippi system.....	45	10,003.56	431,200	1,498,424 1,453,732 b44,692	338,750	727,256	598,964	128,272	961	220,788
Ohio.....	85	32,688.82	1,209,825	2,314,548	1,191,732	2,168,215	1,850,248	317,967	2,559	688,407
Allegheny.....	6	715.84	53,000	{ 115,696 b250,250 }	{ 5,319 }	{ 20,630 }	{ 18,449 }	{ 2,181 }	31	10,670
Monongahela.....	8	1,471.48	75,700	{ 151,725 }	{ 130,537 }	{ 130,664 }	{ 107,179 }	{ 23,485 }	81	45,448
Muskingum.....	4	333.35	16,750	{ 10,281 }	{ 37,681 }	{ 47,571 }	{ 35,254 }	{ 12,317 }	67	17,305
Little Kanawha.....	2	143.56	10,000	{ 2,968 }	{ 9,451 }	{ 24,471 }	{ 12,075 }	{ 12,396 }	18	4,682
Great Kanawha.....	5	427.55	23,500	{ 112,838 }	{ 53,599 }	{ 46,339 }	{ 36,288 }	{ 10,051 }	62	19,410
Big Sandy.....	5	443.65	16,000	{ 156,074 b130,409 }	{ 11,000 }	{ 62,075 }	{ 46,572 }	{ 15,503 }	99	30,485
Kentucky.....	3	246.52	15,000	{ 53,047 }	{ 9,550 }	{ 40,910 }	{ 23,145 }	{ 17,765 }	66	12,220
Green.....	5	316.68	13,500	{ 172,508 b646,770 }	{ 11,206 }	{ 31,889 }	{ 27,154 }	{ 4,735 }	43	5,416
Wabash.....	2	243.33	7,500	{ 35,378 b57,800 }	{ 180 }	{ 42,320 }	{ 22,140 }	{ 20,180 }	50	13,020
Cumberland.....	13	2,631.48	100,800	{ 217,534 }	{ 19,160 }	{ 179,688 }	{ 153,412 }	{ 26,276 }	440	73,345
Tennessee.....	23	5,851.24	210,500	{ 219,170 }	{ 27,185 }	{ 331,345 }	{ 289,699 }	{ 41,646 }	609	140,537
Total for Ohio system.....	161	45,513.50	1,752,075	4,646,996 3,561,767 b1,085,229	1,506,594	3,126,117	2,621,615	504,502	4,125	1,060,945
Lower Mississippi.....	74	31,898.33	1,186,300	2,985,399	518,267	3,040,334	2,742,406	297,928	2,968	1,032,012
White.....	5	1,229.71	45,000	{ 22,537 b63,856 }	{ 4,183 }	{ 100,697 }	{ 82,443 }	{ 18,254 }	119	41,997
Arkansas.....	9	1,785.91	46,700	{ 1,018,923 b643,794 }	{ 2,651 }	{ 57,199 }	{ 44,881 }	{ 12,318 }	141	27,753
Yazoo.....	11	1,409.68	62,000	{ 37,138 b40,242 }	{ 5,391 }	{ 144,068 }	{ 125,469 }	{ 18,599 }	255	60,754
Washita.....	3	994.52	45,000	{ 64,597 b29,110 }	{ 1,204 }	{ 125,180 }	{ 103,220 }	{ 21,960 }	144	43,756
Red.....	9	1,968.88	80,700	{ 89,505 b15,640 }	{ 7,208 }	{ 324,736 }	{ 257,092 }	{ 67,644 }	323	113,349
Total for Lower Mississippi system.....	111	39,287.03	1,465,700	5,019,741 4,218,099 b792,642	538,904	3,792,214	3,355,511	436,703	3,950	1,319,621
Red River of the North.....	3	411.17	12,500	{ b3,637 }		5,661	4,246	1,415	45	1,677

a See page 13.

b Towed by passenger and freight steamers.

c These were excursion passengers carried on towboats.

STATISTICS OF TRANSPORTATION.

TABLE 14.—GENERAL ACCOUNT—TOWBOATS.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, AND EMPLOYÉS, WITH WAGES PAID, OF TOWING STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	EQUIPMENT.			Tons of freight moved.	INCOME AND EXPENDITURE.			EMPLOYÉS. (a)	
	Number.	Tonnage.	Value.		Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid.
Total for Mississippi valley.....	290	53,875.55	\$3,422,983	17,133,342	\$6,036,748	\$4,098,723	\$1,938,025	4,742	\$1,787,995
Upper Mississippi.....	77	9,736.51	621,800	3,428,548	1,249,850	812,401	437,449	1,239	385,364
Saint Croix.....	10	1,129.82	88,500	846,016	154,597	83,481	71,116	159	41,691
Chippewa.....	1	108.00	7,000	325,477	18,244	9,844	8,400	16	5,016
Illinois.....									
Missouri, Osage, and Gasconade.....	10	573.37	41,700	161,983	62,357	50,417	11,940	70	24,985
Total for Upper Mississippi system.....	98	11,547.70	759,000	4,762,024	1,483,048	956,143	528,905	1,484	457,006
Ohio.....	114	26,708.08	1,680,600	5,211,119	2,168,020	1,657,136	510,884	2,069	910,946
Allegheny.....									
Monongahela.....	25	3,441.97	246,700	3,143,207	306,810	233,447	73,363	287	120,408
Muskingum.....	2	219.35	7,000	(b)	7,361	4,915	2,446	11	3,406
Little Kanawha.....	1	34.93	4,000	112,689	2,000	1,668	332	5	790
Great Kanawha.....	4	692.66	39,333	1,032,364	47,809	31,938	15,871	63	16,919
Big Sandy.....									
Kentucky.....	1	77.88	4,000	203,903	17,911	10,721	7,190	15	4,110
Green.....									
Wabash.....									
Cumberland.....	4	304.09	8,500	756,782	25,948	17,527	8,421	25	11,085
Tennessee.....	6	1,183.71	46,250	689,908	37,328	28,160	9,168	63	13,308
Total for Ohio system.....	157	32,662.67	2,036,383	11,149,972	2,613,187	1,985,512	627,675	2,538	1,081,062
Lower Mississippi.....	35	9,665.18	627,600	1,221,346	1,938,513	1,157,068	781,445	720	249,927
White.....									
Arkansas.....									
Yazoo.....									
Washita.....									
Red.....									
Total for Lower Mississippi system.....	35	9,665.18	627,600	1,221,346	1,938,513	1,157,068	781,445	720	249,927
Red River of the North.....									

a See page 13.

b Chartered to the United States government in 1889.

RIVERS OF THE MISSISSIPPI VALLEY.

443

TABLE 15.—GENERAL ACCOUNT—FERRYBOATS.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, AND EMPLOYÉS, WITH WAGES PAID, OF FERRY STEAMERS (OVER 5 TONS) OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	EQUIPMENT.			TRAFFIC.		INCOME AND EXPENDITURE.			EMPLOYÉS. (a)	
	Number.	Tonnage.	Value.	Tons of freight moved.	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid.
Total for Mississippi valley.....	163	18,593.40	\$1,056,250	1,111,906	8,474,646	\$1,196,817	\$818,634	\$378,183	893	\$456,676
Upper Mississippi.....	24	2,144.39	170,200	539,057	1,192,409	131,528	92,078	39,450	125	53,505
Saint Croix.....	1	26.98	3,000	800	12,000	1,485	1,050	435	2	700
Chippewa.....										
Illinois.....	2	48.45	1,000		28,600	2,037	1,726	311	4	1,100
Missouri, Osage, and Gasconade.....	24	1,685.49	94,100	158,035	249,975	102,493	72,772	29,721	104	47,352
Total for Upper Mississippi system.....	51	3,905.31	268,300	697,892	1,482,984	237,543	167,626	69,917	235	102,657
Ohio.....	54	10,918.00	350,250	244,898	3,924,074	431,267	246,893	184,374	266	142,126
Allegheny.....										
Monongahela.....	3	263.39	15,000		130,850	11,238	10,017	1,221	12	7,485
Muskingum.....										
Little Kanawha.....										
Great Kanawha.....	2	102.47	8,000		38,525	13,283	6,965	6,318	8	3,420
Big Sandy.....										
Kentucky.....										
Green.....										
Wabash.....										
Cumberland.....										
Tennessee.....	2	259.67	3,000		903,100	32,133	13,034	19,099	15	10,800
Total for Ohio system.....	61	11,543.53	376,250	244,898	4,996,549	487,921	276,909	211,012	301	163,831
Lower Mississippi.....	45	2,831.74	392,200	168,016	1,933,048	442,169	362,431	79,738	337	183,972
White.....										
Arkansas.....	6	312.82	19,500	1,100	62,065	29,184	11,668	17,516	20	6,216
Yazoo.....										
Washita.....										
Red.....										
Total for Lower Mississippi system.....	51	3,144.56	411,700	169,116	1,995,113	471,353	374,099	97,254	357	190,188
Red River of the North.....										

a See page 13.

STATISTICS OF TRANSPORTATION.

TABLE 16.—GENERAL ACCOUNT—HARBOR BOATS.

NUMBER, TONNAGE, VALUE, FINANCIAL ACCOUNT, AND EMPLOYÉS, WITH WAGES PAID, OF HARBOR BOATS OPERATING IN THE PORTS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	EQUIPMENT.			INCOME AND EXPENDITURE.			EMPLOYÉS. (a)	
	Number.	Tonnage.	Value.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid.
Total for Mississippi valley.....	141	18,981.96	\$1,028,350	\$1,291,080	\$940,989	\$350,091	1,016	\$409,267
Upper Mississippi.....	25	994.26	82,250	102,147	71,503	30,644	117	37,075
Saint Croix.....	4	101.55	7,500	13,102	9,172	3,930	15	5,287
Chippewa.....								
Illinois.....								
Missouri, Osage, and Gasconade.....								
Total for Upper Mississippi system.....	29	1,095.81	89,750	115,249	80,675	34,574	132	42,362
Ohio.....	48	4,275.11	301,000	254,934	198,282	56,652	462	152,497
Allegheny.....								
Monongahela.....								
Muskingum.....	1	15.09	1,300	550	420	130	3	340
Little Kanawha.....	1	25.64	3,000	3,450	2,600	850	4	1,085
Great Kanawha.....	6	822.49	41,000	82,575	61,486	21,089	72	23,070
Big Sandy.....	3	344.02	24,000	32,845	23,307	9,538	42	13,440
Kentucky.....								
Green.....								
Wabash.....								
Cumberland.....								
Tennessee.....								
Total for Ohio system.....	59	5,482.35	370,300	374,352	286,095	88,257	583	190,332
Lower Mississippi.....	53	12,403.80	588,300	801,479	574,219	227,260	301	176,573
White.....								
Arkansas.....								
Yazoo.....								
Washita.....								
Red.....								
Total for Lower Mississippi system.....	53	12,403.80	588,300	801,479	574,219	227,260	301	176,573
Red River of the North.....								

a See page 13.

RIVERS OF THE MISSISSIPPI VALLEY.

445

TABLE 17.—GENERAL ACCOUNT—MISCELLANEOUS CRAFT.

CUMBER, TONNAGE, VALUE, FINANCIAL ACCOUNT, AND EMPLOYÉS, WITH WAGES PAID, OF MISCELLANEOUS CRAFT OPERATING IN THE PORTS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	EQUIPMENT.			INCOME AND EXPENDITURE.			EMPLOYÉS. (a)	
	Number.	Tonnage.	Value.	Gross earnings.	Expenses.	Net earnings.	Men employed.	Total wages paid.
Total for Mississippi valley	61	6,718.65	\$466,050	\$161,640	\$161,640		244	\$81,893
Upper Mississippi	10	1,999.75	139,800	47,389	47,389		111	20,206
Saint Croix								
Chippewa								
Illinois								
Missouri, Osage, and Gasconade								
Total for Upper Mississippi system	10	1,999.75	139,800	47,389	47,389		111	20,206
Ohio	25	2,978.83	109,200	48,218	48,218		68	23,869
Allegheny								
Monongahela	12	1,057.31	82,200	48,218	48,218		42	22,680
Muskingum								
Little Kanawha	1	24.05	1,000	1,000	1,000		1	540
Great Kanawha	2	58.78	3,500	3,000	3,000		5	2,366
Big Sandy								
Kentucky								
Green								
Wabash								
Cumberland								
Tennessee								
Total for Ohio system	40	4,118.97	255,900	100,436	100,436		116	49,455
Lower Mississippi	11	599.93	70,350	13,815	13,815		17	12,232
White								
Arkansas								
Yazoo								
Washita								
Red								
Total for Lower Mississippi system	11	599.93	70,350	13,815	13,815		17	12,232
Red River of the North								

a See page 13.

TABLE 18.—GENERAL ACCOUNT—NO TRAFFIC REPORT.

NUMBER, TONNAGE, AND VALUE OF ALL CRAFT (OVER 5 TONS) OWNED IN THE PORTS OF THE MISSISSIPPI VALLEY, FOR WHICH NO TRAFFIC REPORT WAS RECEIVED FOR 1889.

RIVERS.	EQUIPMENT.			RIVERS.	EQUIPMENT.		
	Number.	Tonnage.	Value.		Number.	Tonnage.	Value.
Total for Mississippi valley	139	17,387.07	\$904,143	Ohio—Continued.			
Upper Mississippi	29	4,370.39	209,619	Green			
Saint Croix				Wabash	1	53.67	\$2,500
Chippewa				Cumberland			
Illinois				Tennessee	1	22.27	1,000
Missouri, Osage, and Gasconade	3	42.13	3,600	Total for Ohio system	59	7,874.81	401,802
Total for Upper Mississippi system	32	4,412.52	213,219	Lower Mississippi	47	5,077.09	287,622
Ohio	54	7,466.78	388,302	White			
Allegheny				Arkansas			
Monongahela				Yazoo			
Muskingum				Washita			
Little Kanawha				Red			
Great Kanawha	2	282.18	8,000	Total for Lower Mississippi system	47	5,077.09	287,622
Big Sandy				Red River of the North	1	22.65	1,500
Kentucky	1	49.91	2,000				

STATISTICS OF TRANSPORTATION.

TABLE 19.—GENERAL ACCOUNT—RESUME.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, EMPLOYÉS, AND WAGES PAID OF ALL STEAMERS REGISTERED IN THE PORTS OF THE RIVERS OF THE MISSISSIPPI VALLEY IN 1889.

RIVERS.	EQUIPMENT.			TRAFFIC.			INCOME AND EXPENDITURE.			EMPLOYÉS. (a)	
	Number.	Tonnage.	Value.	Miles traveled.	Freight moved. (Tons.)	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Number making up ordinary crews.	Total wages paid during year.
Total for Mississippi valley.	1,114	210,771.89	\$10,539,251	7,316,545	29,405,046	10,858,894	\$16,337,533	\$12,600,342	\$3,737,191	15,996	\$5,338,692
Upper Mississippi:											
Passenger and freight	23	5,732.91	281,700		518,816	285,676	463,872	380,375	83,497	576	143,323
Towboats	77	9,736.51	621,800		3,428,548		1,249,850	812,401	437,449	1,239	385,364
Ferryboats	24	2,144.39	170,200		539,057	1,192,409	131,528	92,078	39,450	125	53,505
Harbor boats	25	994.26	62,250				102,147	71,503	30,644	117	37,075
Miscellaneous	10	1,999.75	139,800				47,389	47,389		111	20,206
No traffic reported	29	4,370.39	209,619								
Total	188	24,978.21	1,485,369	1,101,990	4,486,421	1,478,085	1,994,786	1,403,746	591,040	2,168	639,483
Saint Croix:											
Towboats	10	1,129.82	88,500		846,016	304	154,597	83,481	71,116	159	41,601
Ferryboats	1	26.98	3,000		800	12,000	1,485	1,050	435	2	700
Harbor boats	4	101.55	7,500				13,102	9,172	3,930	15	5,287
Total	15	1,258.35	99,000	67,990	846,816	12,304	169,184	93,703	75,481	176	47,588
Chippewa:											
Towboats	1	108.00	7,000	12,000	325,477	4,441	18,244	9,844	8,400	16	5,046
Illinois:											
Passenger and freight	7	1,811.80	79,200		180,264	21,768	133,764	112,321	21,443	162	35,661
Ferryboats	2	48.45	1,000			28,600	2,037	1,726	311	4	1,100
Total	9	1,860.25	80,200	83,436	180,264	50,368	135,801	114,047	21,754	166	36,761
Missouri, Osage, and Gasconade:											
Passenger and freight	15	2,458.85	70,300		799,344	26,561	129,620	106,288	23,332	243	41,794
Towboats	10	573.37	41,700		161,983		62,357	50,417	11,940	70	24,995
Ferryboats	24	1,685.49	94,100		158,035	249,975	102,493	72,772	29,721	104	47,352
No traffic reported	3	42.13	3,600								
Total	52	4,759.84	209,700	158,239	1,119,362	276,536	294,470	229,477	64,993	417	114,141
Ohio:											
Passenger and freight	85	32,688.82	1,209,825		2,314,548	1,191,732	2,168,215	1,850,248	317,967	2,559	688,407
Towboats	114	26,708.08	1,680,600		5,211,119		2,168,020	1,657,136	510,884	2,069	910,946
Ferryboats	54	10,918.00	350,250		244,808	3,924,074	431,267	246,893	184,374	266	142,126
Harbor boats	48	4,275.11	301,000				254,934	198,282	56,652	462	152,497
Miscellaneous	25	2,978.83	169,200				48,218	48,218		68	23,899
No traffic reported	54	7,466.78	388,302								
Total	380	85,035.62	4,099,177	2,696,020	7,770,565	5,115,806	5,070,654	4,000,777	1,069,877	5,424	1,917,945
Allegheny:											
Passenger and freight	6	715.84	53,000	2,040	365,946	5,319	20,630	18,449	2,181	31	10,670
Monongahela:											
Passenger and freight	8	1,471.48	75,700		151,725	130,537	130,664	107,179	23,485	81	45,448
Towboats	25	3,441.97	246,700		4,143,207		306,810	233,447	73,363	287	130,466
Ferryboats	3	263.39	15,000			130,850	11,238	10,017	1,221	12	7,485
Miscellaneous	12	1,057.31	82,200				48,218	48,218		42	22,699
Total	48	6,234.15	419,600	130,898	3,294,932	261,387	496,930	398,861	98,069	422	196,621
Muskingum:											
Passenger and freight	4	333.35	16,750		10,281	37,681	47,571	35,254	12,317	67	17,365
Towboats	2	219.35	7,000				7,361	4,915	2,446	11	3,466
Harbor boats	1	15.09	1,300				550	420	130	3	240
Total	7	567.79	25,050	27,055	10,281	37,681	55,482	40,589	14,893	81	20,951
Little Kanawha:											
Passenger and freight	2	143.56	10,000		2,968	9,451	24,471	12,075	12,396	18	4,662
Towboats	1	34.93	4,000		112,689		2,000	1,668	332	5	790
Harbor boats	1	25.64	3,000				3,450	2,600	850	4	1,085
Miscellaneous	1	24.05	1,000				1,000	1,000		1	540
Total	5	228.18	18,000	14,740	115,657	9,451	30,921	17,343	13,578	28	7,067

a See page 13.

RIVERS OF THE MISSISSIPPI VALLEY.

447

TABLE 19.—GENERAL ACCOUNT—RESUME—Continued.

NUMBER, TONNAGE, VALUE, OPERATIONS, FINANCIAL ACCOUNT, EMPLOYÉS, AND WAGES PAID OF ALL STEAMERS, ETC.—Continued.

RIVERS.	EQUIPMENT.			TRAFFIC.			INCOME AND EXPENDITURE.			EMPLOYÉS.	
	Number.	Tonnage.	Value.	Miles traveled.	Freight moved. (Tons.)	Passengers carried.	Gross earnings.	Expenses.	Net earnings.	Number making up ordinary crews.	Total wages paid during year.
Great Kanawha:											
Passenger and freight	5	427.55	\$23,500		112,838	53,509	\$46,339	\$36,288	\$10,051	62	\$19,410
Towboats	4	692.66	39,333		1,032,364		47,809	31,938	15,871	63	16,919
Ferryboats	2	102.47	8,000			38,525	13,283	6,965	6,318	8	3,420
Harbor boats	6	822.49	41,000				82,575	61,486	21,089	72	23,070
Miscellaneous	2	58.78	3,500				3,000	3,000		5	2,366
No traffic reported	2	282.18	8,000								
Total	21	2,386.13	123,333	59,080	1,145,202	92,124	193,006	139,677	53,329	210	65,185
Big Sandy:											
Passenger and freight	5	443.05	16,000		286,483	11,000	62,075	46,572	15,503	99	30,485
Harbor boats	3	344.02	24,000				32,843	23,307	9,536	42	13,440
Total	8	787.67	40,000	47,350	286,483	11,000	94,918	69,879	25,039	141	43,925
Kentucky:											
Passenger and freight	3	248.52	15,000		53,047	9,550	40,910	23,145	17,765	66	12,220
Towboats	1	77.88	4,000		203,903		17,911	10,721	7,190	15	4,110
No traffic reported	1	49.91	2,000								
Total	5	374.31	21,000	12,588	256,950	9,550	58,821	33,866	24,955	81	16,330
Green:											
Passenger and freight	5	316.68	13,500	10,300	819,278	11,200	31,889	27,154	4,735	43	5,416
Wabash:											
Passenger and freight	2	243.33	7,500		93,178	180	42,320	22,140	20,180	50	13,020
No traffic reported	1	53.67	2,500								
Total	3	297.00	10,000	12,700	93,178	180	42,320	22,140	20,180	50	13,020
Cumberland:											
Passenger and freight	13	2,631.48	100,800		217,534	19,160	179,688	153,412	26,276	440	73,345
Towboats	4	304.09	8,500		756,782		25,948	17,527	8,421	25	11,085
Total	17	2,935.57	109,300	144,968	974,316	19,160	205,636	170,939	34,697	465	84,430
Tennessee:											
Passenger and freight	23	5,851.24	210,500		219,170	27,185	331,345	289,699	41,646	609	140,537
Towboats	6	1,183.71	46,250		689,908		37,328	28,160	9,168	63	13,398
Ferryboats	2	259.67	3,000			903,100	32,133	13,034	19,099	15	10,800
No traffic reported	1	22.27	1,000								
Total	32	7,316.89	260,750	420,894	909,078	930,285	400,806	330,893	69,913	687	164,735
Lower Mississippi:											
Passenger and freight	74	31,898.33	1,186,300		2,985,399	518,267	3,040,334	2,742,406	297,928	2,968	1,032,012
Towboats	35	9,665.18	627,600		1,221,346		1,938,513	1,157,068	781,445	720	249,927
Ferryboats	45	2,831.74	392,200		168,016	1,933,048	442,169	362,431	79,738	337	183,972
Harbor boats	53	12,403.80	588,300				801,479	574,219	227,260	301	176,573
Miscellaneous	11	599.93	70,350				13,815	13,815		17	12,232
No traffic reported	47	5,077.09	287,622								
Total	265	62,476.07	3,152,372	1,826,254	4,374,761	2,451,315	6,236,310	4,849,939	1,386,371	4,943	1,654,716
White:											
Passenger and freight	5	1,229.71	45,000	68,796	86,393	4,183	100,697	82,443	18,254	119	41,997
Arkansas:											
Passenger and freight	9	1,785.91	46,700		1,662,717	2,651	57,199	44,881	12,318	141	27,753
Ferryboats	6	312.82	19,500		1,100	62,065	29,184	11,668	17,516	20	6,216
Total	15	2,098.73	66,200	61,689	1,663,817	64,716	86,383	56,549	29,834	161	33,969
Yazoo:											
Passenger and freight	11	1,409.68	62,000	121,216	77,380	5,391	144,068	125,469	18,599	255	60,734
Washita:											
Passenger and freight	3	994.52	45,000	60,828	93,707	1,204	125,180	103,220	21,960	144	43,756
Red:											
Passenger and freight	9	1,968.88	80,700	172,800	105,145	7,208	324,736	257,092	67,644	323	113,349
Red River of the North:											
Freight	3	411.17	12,500		3,637		5,661	4,346	1,415	45	1,677
No traffic reported	1	22.65	1,500								
Total	4	433.82	14,000	1,084	3,637		5,661	4,246	1,415	45	1,677

STATISTICS OF TRANSPORTATION.

TABLE 20.—COMPARATIVE STATISTICS.

NUMBER, TONNAGE, AND VALUE OF STEAMERS AND UNRIGGED CRAFT OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, GIVEN BY LOCALITIES.

RIVERS.	Year.	TOTAL ALL CRAFT.			STEAMERS.			UNRIGGED.		
		Number.	Tonnage.	Value.	Number.	Tonnage.	Value.	Number.	Tonnage.	Value.
Total Mississippi valley	1880	5,052	1,161,616.86	\$16,379,400	1,198	251,792.85	\$12,009,400	3,854	909,824.01	\$4,370,000
	1889	7,453	3,393,379.89	15,335,005	1,114	210,771.89	10,539,251	6,339	3,182,608.00	4,795,754
Upper Mississippi	1880	652	242,689.59	4,339,050	366	83,918.09	3,004,050	286	158,771.50	1,335,000
	1889	509	203,889.81	1,896,587	213	28,204.81	1,671,569	296	175,685.00	225,018
Ohio	1880	4,041	858,524.99	8,696,500	473	107,472.48	5,661,500	3,568	751,052.51	3,035,000
	1889	6,245	2,920,468.83	8,696,341	537	107,195.83	5,192,710	5,708	2,813,273.00	3,503,631
Lower Mississippi	1880	315	48,303.06	2,851,550	315	48,303.06	2,851,550			
	1889	580	247,957.59	4,476,472	308	70,177.59	3,451,272	272	177,780.00	1,025,200
Missouri, etc.	1880	44	12,099.22	492,300	44	12,099.22	492,300			
	1889	119	21,063.66	265,605	56	5,193.66	223,700	63	15,870.00	41,905

a Including all unriggered owned on both the Upper and Lower Mississippi.

TABLE 21.—COMPARATIVE STATISTICS.

NUMBER, TONNAGE, AND VALUE OF ALL STEAM VESSELS OWNED ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, GIVEN BY OCCUPATIONS.

CLASSES.	Year.	Number.	Tonnage.	Value.
Total, all classes	1880	1,198	251,792.85	\$12,009,400
	1889	1,114	210,771.89	10,539,251
Passenger and freight	1880	503	166,375.82	7,050,900
	1889	320	95,215.26	3,661,475
Ferry	1880	177	21,306.59	1,022,900
	1889	163	18,593.40	1,056,250
Towing and harbor	1880	477	63,224.95	3,800,500
	1889	431	72,857.51	4,451,333
Miscellaneous	1880	41	885.49	126,100
	1889	200	24,105.72	1,370,193

TABLE 22.—COMPARATIVE STATISTICS.

GROSS EARNINGS BY ALL CRAFT OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, TOGETHER WITH THE AMOUNT PAID OUT IN WAGES DURING THOSE YEARS.

RIVERS.	Year.	Gross earnings.	Paid in wages.
Total Mississippi valley	1880	\$20,293,173	\$6,979,226
	1889	16,337,533	5,338,862
Upper Mississippi	1880	7,068,864	2,204,644
	1889	2,318,015	728,878
Ohio	1880	7,028,924	2,847,085
	1889	6,702,013	2,545,025
Lower Mississippi	1880	4,168,989	1,626,029
	1889	7,017,374	1,948,541
Missouri, etc.	1880	826,396	301,468
	1889	300,131	115,818

RIVERS OF THE MISSISSIPPI VALLEY.

449

TABLE 23.—COMPARATIVE STATISTICS.

NUMBER OF MEN CONSTITUTING TOTALS OF ORDINARY CREWS EMPLOYED ON ALL CRAFT OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, TOGETHER WITH WAGES PAID, AND CALCULATED AVERAGES OF ANNUAL PAY, AND DECREASE OR INCREASE PER MAN, GIVEN BY LOCALITIES.

RIVERS.	Year.	Total number men ordinary crews.	Total wages paid.	Average annual wages per man.	Average annual increase in wages per man.	Average annual decrease in wages per man.
Total Mississippi valley.....	1880	23, 616	\$6, 979, 226	\$295. 53		
	1889	15, 906	5, 338, 862	333. 76	\$38. 23	
Upper Mississippi.....	1880	7, 824	2, 204, 644	281. 78		
	1889	2, 526	728, 878	288. 55	6. 77	
Ohio.....	1880	9, 090	2, 847, 085	313. 21		
	1889	7, 663	2, 545, 625	332. 20	18. 99	
Lower Mississippi.....	1880	5, 655	1, 626, 029	287. 54		
	1889	5, 345	1, 948, 541	364. 55	77. 01	
Missouri, etc.....	1880	1, 047	301, 468	287. 94		
	1889	462	115, 818	250. 69		\$37. 25

TABLE 24.—COMPARATIVE STATISTICS.

NUMBER OF TONS OF FREIGHT MOVED AND NUMBER OF PASSENGERS CARRIED BY ALL CRAFT OPERATING ON THE RIVERS OF THE MISSISSIPPI VALLEY IN 1880 AND 1889, GIVEN BY LOCALITIES.

RIVERS.	Year.	FREIGHT.			PASSENGER.		
		Total.	By steamers.	On barges.	Total.	Regular.	Ferry.
Total Mississippi valley.....	1880	18, 946, 522	13, 557, 884	5, 388, 638	6, 728, 067	1, 528, 083	5, 199, 984
	1889	29, 405, 046	10, 345, 504	19, 059, 542	10, 858, 894	2, 384, 248	8, 474, 646
Upper Mississippi.....	1880	3, 565, 338	696, 218	2, 867, 120	1, 299, 553	341, 371	958, 182
	1889	5, 838, 978	1, 194, 245	4, 644, 733	1, 545, 198	312, 189	1, 233, 009
Ohio.....	1880	11, 738, 909	9, 217, 391	2, 521, 518	3, 961, 798	960, 936	3, 000, 862
	1889	16, 041, 866	3, 806, 665	12, 235, 201	6, 503, 143	1, 506, 594	4, 996, 549
Lower Mississippi.....	1880	3, 576, 972	3, 576, 972		1, 385, 357	212, 417	1, 172, 940
	1889	6, 401, 203	4, 387, 215	2, 013, 988	2, 534, 017	538, 904	1, 995, 113
Missouri, etc.....	1880	65, 303	65, 303		81, 359	13, 359	68, 000
	1889	1, 122, 999	957, 379	165, 620	276, 536	26, 561	249, 975

STATISTICS OF TRANSPORTATION.

TABLE 25.—COMPARATIVE STATISTICS.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY FOR THE YEARS 1880 TO 1888, INCLUSIVE. (a)

CUSTOMS DISTRICTS.	1880						1881					
	TOTAL.		STEAMERS.		BARGES.		TOTAL.		STEAMERS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	2,295	473,792.08	1,225	256,915.99	1,070	216,876.04	1,424	393,946.89	1,191	246,997.37	233	146,949.52
New Orleans, Louisiana	173	30,113.39	167	29,413.31	6	700.08	177	31,432.02	171	30,731.94	6	700.08
Natchez, Mississippi	3	191.83	3	191.83								
Vicksburg, Mississippi	29	3,436.49	27	2,963.32	2	473.17						
Memphis, Tennessee	66	10,779.65	66	10,779.65				11,302.58	65	11,302.58		
Nashville, Tennessee	26	3,621.37	26	3,621.37			29	4,599.08	29	4,599.08		
Louisville, Kentucky	53	17,749.68	53	17,749.68			58	17,539.28	58	17,539.28		
Saint Louis, Missouri	319	141,974.94	162	59,669.13	157	82,275.81	313	180,119.99	153	54,392.72	160	125,727.27
Burlington, Iowa	31	2,414.25	31	2,414.25			42	4,624.03	42	4,624.03		
Dubuque, Iowa	29	3,696.79	29	3,696.79			31	3,757.13	31	3,757.13		
Lacrosse, Wisconsin	40	6,227.86	39	6,200.61	1	27.25	45	6,626.74	44	6,599.49	1	27.25
Minnesota (b)	80	8,141.78	48	5,873.06	32	2,268.72	54	6,908.80	45	6,003.50	9	905.30
Galena, Illinois	25	2,267.41	25	2,267.41			23	2,119.97	23	2,119.97		
Cairo, Illinois	41	7,888.58	28	4,323.36	13	3,565.22	43	7,194.76	31	3,849.03	12	3,345.73
Evansville, Indiana	67	6,403.87	66	5,708.97	1	694.90	60	5,564.53	60	5,564.53		
Cincinnati, Ohio	174	50,551.95	116	39,931.44	58	10,620.51	110	38,628.88	110	38,628.88		
Wheeling, West Virginia	432	43,419.05	142	16,711.88	290	26,707.17	137	16,056.20	137	16,056.20		
Pittsburg, Pennsylvania	678	129,025.97	168	39,482.76	510	89,543.21	205	50,752.58	160	34,508.69	45	16,243.89
Omaha, Nebraska	29	5,887.17	29	5,887.17			32	6,720.32	32	6,720.32		

CUSTOMS DISTRICTS.	1882						1883					
	TOTAL.		STEAMERS.		BARGES.		TOTAL.		STEAMERS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,438	389,644.39	1,226	249,210.10	212	140,434.29	1,312	361,047.68	1,168	243,817.19	149	117,730.49
New Orleans, Louisiana	177	28,306.53	172	28,075.83	5	230.70	132	21,199.21	132	21,199.21		
Natchez, Mississippi	5	254.33	5	254.33			4	239.87	4	239.87		
Vicksburg, Mississippi	3	44.67	3	44.67			28	3,583.33	28	3,583.33		
Memphis, Tennessee	65	10,426.37	65	10,426.37			73	11,503.30	73	11,503.30		
Nashville, Tennessee	15	2,527.93	15	2,527.93			18	3,876.32	18	3,876.32		
Chattanooga, Tennessee	13	1,567.44	13	1,567.44			17	1,936.11	17	1,936.11		
Louisville, Kentucky	60	17,938.08	60	17,938.08			57	18,118.07	57	18,118.07		
Saint Louis, Missouri	308	178,598.35	163	57,933.02	145	120,665.33	295	178,276.29	160	62,349.88	135	115,926.41
Kansas city, Missouri							1	112.57	1	112.57		
Burlington, Iowa	43	4,305.05	43	4,305.05			45	4,815.52	45	4,815.52		
Dubuque, Iowa	24	3,369.81	24	3,369.81			27	4,719.56	27	4,719.56		
Lacrosse, Wisconsin	46	6,436.36	45	6,409.11	1	27.25	35	3,027.59	35	3,027.59		
Minnesota	58	7,473.66	48	6,452.21	10	1,021.45	59	7,861.19	46	6,328.49	13	1,532.70
Galena, Illinois	23	2,518.37	23	2,518.37			25	2,771.63	25	2,771.63		
Cairo, Illinois	36	5,744.58	30	3,498.91	6	2,245.67	32	3,940.42	31	3,669.04	1	271.38
Evansville, Indiana	68	5,842.88	58	5,842.88			64	6,051.50	64	6,051.50		
Cincinnati, Ohio	114	37,486.94	114	37,486.94			110	35,013.12	110	35,013.12		
Wheeling, West Virginia	144	17,329.99	144	17,329.99			110	14,704.74	110	14,704.74		
Pittsburg, Pennsylvania	214	52,710.55	169	36,466.66	45	16,243.89	157	34,803.49	157	34,803.49		
Omaha, Nebraska	32	6,762.50	32	6,762.50			23	4,493.85	23	4,493.85		

a Compiled from reports furnished by commissioner of navigation.

b Comprising the ports of Saint Vincent and Saint Paul.

RIVERS OF THE MISSISSIPPI VALLEY.

451

TABLE 25.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY FOR THE YEARS 1880 TO 1889, INCLUSIVE—Continued.

CUSTOMS DISTRICTS.	1884						1885					
	TOTAL.		STEAMERS.		BARGES.		TOTAL.		STEAMERS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,302	356,263.61	1,157	241,007.35	145	115,256.26	1,289	346,054.19	1,149	231,675.84	140	114,378.35
New Orleans, Louisiana ..	138	20,834.85	138	20,834.85			127	20,147.83	127	20,147.83		
Natchez, Mississippi	4	452.25	4	452.25			3	303.23	3	303.23		
Vicksburg, Mississippi	30	3,298.74	30	3,298.74			32	3,637.74	32	3,637.74		
Memphis, Tennessee	73	14,977.04	73	14,977.04			72	13,807.31	72	13,807.31		
Nashville, Tennessee	22	4,020.17	22	4,020.17			16	3,562.51	16	3,562.51		
Chattanooga, Tennessee	16	2,771.84	16	2,771.84			18	3,052.59	18	3,052.59		
Paducah, Kentucky	9	651.62	9	651.62			18	1,412.84	18	1,412.84		
Louisville, Kentucky	53	18,175.15	53	18,175.15			56	15,902.25	56	15,902.25		
Saint Louis, Missouri	268	168,824.60	136	55,345.60	132	113,479.00	269	165,924.62	141	53,052.15	128	112,872.47
Kansas city, Missouri	11	1,129.20	11	1,129.20			11	1,125.20	11	1,125.20		
Saint Joseph, Missouri							3	297.06	3	297.06		
Burlington, Iowa	46	4,984.63	46	4,984.63			45	4,828.52	45	4,828.52		
Dubuque, Iowa	22	4,368.02	22	4,368.02			23	4,299.70	23	4,299.70		
Omaha, Nebraska	19	3,787.46	19	3,787.46			21	4,013.28	21	4,013.28		
Minnesota	60	8,271.10	48	6,765.22	12	1,505.88	56	7,416.37	44	5,910.49	12	1,505.88
Lacrosse, Wisconsin	43	3,626.31	43	3,626.31			40	3,666.65	40	3,666.65		
Galena, Illinois	23	2,319.23	23	2,319.23			24	2,527.21	24	2,527.21		
Cairo, Illinois	25	4,269.91	24	3,998.53	1	271.38	18	3,508.36	18	3,508.36		
Evansville, Indiana	67	8,710.09	67	8,710.09			60	8,727.89	60	8,727.89		
Cincinnati, Ohio	101	31,610.42	101	31,610.42			110	32,746.76	110	32,746.76		
Wheeling, West Virginia	109	14,583.83	109	14,583.83			112	13,479.07	112	13,479.07		
Pittsburg, Pennsylvania	163	34,597.15	163	34,597.15			155	31,667.20	155	31,667.20		
CUSTOMS DISTRICTS.	1886						1887					
	TOTAL.		STEAMERS.		BARGES.		TOTAL.		STEAMERS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,247	334,810.06	1,105	221,088.76	142	113,721.30	1,292	327,313.55	1,144	217,941.56	148	109,371.99
New Orleans, Louisiana ..	125	20,395.66	125	20,395.66			129	19,908.80	129	19,908.80		
Natchez, Mississippi	3	303.23	3	303.23			3	303.23	3	303.23		
Vicksburg, Mississippi	30	2,555.51	30	2,555.51			30	2,723.39	30	2,723.39		
Memphis, Tennessee	70	13,774.98	70	13,774.98			82	14,901.67	82	14,901.67		
Nashville, Tennessee	19	4,088.45	19	4,088.45			17	3,469.49	17	3,469.49		
Chattanooga, Tennessee	15	2,665.32	15	2,665.32			17	3,546.92	17	3,546.92		
Paducah, Kentucky	23	3,496.24	23	3,496.24			29	4,270.03	29	4,270.03		
Louisville, Kentucky	57	14,997.73	57	14,997.73			55	12,176.58	55	12,176.58		
Saint Louis, Missouri	252	161,478.54	129	49,738.90	123	111,739.64	250	153,829.16	132	47,153.20	118	106,675.96
Kansas city, Missouri	14	1,185.35	13	1,150.54	1	25.81	13	1,164.66	13	1,164.66		
Saint Joseph, Missouri	4	687.55	4	687.55			6	746.57	6	746.57		
Omaha, Nebraska	22	3,636.56	22	3,636.56			19	2,934.96	19	2,934.96		
Burlington, Iowa	49	5,250.75	45	4,908.84	4	341.91	52	5,182.35	43	4,656.02	9	526.33
Dubuque, Iowa	24	4,564.89	24	4,564.89			22	4,370.74	22	4,370.74		
Minnesota	59	8,010.15	46	6,431.21	13	1,578.94	65	8,272.87	49	6,504.93	16	1,767.94
Lacrosse, Wisconsin	41	3,383.25	41	3,383.25			43	3,932.78	45	3,655.02	3	277.76
Galena, Illinois	24	2,577.81	23	2,542.81	1	35.00	28	3,170.85	26	3,046.85	2	124.00
Evansville, Indiana	55	8,198.62	55	8,198.62			53	7,309.70	53	7,309.70		
Cincinnati, Ohio	106	31,594.03	106	31,594.03			107	30,535.73	107	30,535.73		
Wheeling, West Virginia	101	10,475.45	101	10,475.45			109	11,951.21	109	11,951.21		
Pittsburg, Pennsylvania	154	31,489.99	154	31,489.99			158	32,711.86	158	32,711.86		

STATISTICS OF TRANSPORTATION.

TABLE 25.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES REGISTERED IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY FOR THE YEARS 1880 TO 1889, INCLUSIVE—Continued.

CUSTOMS DISTRICTS.	1888						1889					
	TOTAL.		STEAMERS.		BARGES.		TOTAL.		STEAMERS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
Total	1,253	304,990.93	1,122	214,035.55	131	90,955.38	1,246	299,335.54	1,114	209,826.07	132	89,509.47
New Orleans, Louisiana.....	127	19,447.03	127	19,447.03	.....	.....	126	19,248.58	126	19,248.58	.....	.....
Natchez, Mississippi.....	4	592.35	4	592.35	.....	.....	4	592.35	4	592.35	.....	.....
Vicksburg, Mississippi.....	30	2,932.28	30	2,932.28	.....	.....	30	2,875.99	30	2,875.99	.....	.....
Memphis, Tennessee.....	66	11,167.28	66	11,167.28	.....	.....	71	12,113.76	71	12,113.76	.....	.....
Chattanooga, Tennessee.....	20	4,048.30	20	4,048.30	.....	.....	22	3,966.09	22	3,966.09	.....	.....
Paducah, Kentucky.....	42	6,555.71	42	6,555.71	.....	.....	53	8,781.24	53	8,781.24	.....	.....
Louisville, Kentucky.....	45	11,024.75	45	11,024.75	.....	.....	52	11,937.92	52	11,937.92	.....	.....
Saint Louis, Missouri.....	219	134,103.07	123	46,210.35	96	87,892.72	208	129,249.39	115	42,827.04	93	86,422.35
Kansas city, Missouri.....	16	1,381.63	13	1,185.00	3	196.63	16	1,781.35	16	1,781.35	.....	.....
Saint Joseph, Missouri.....	6	368.72	6	368.72	.....	.....	6	340.53	6	340.53	.....	.....
Omaha, Nebraska.....	19	2,687.46	19	2,687.46	.....	.....	13	1,329.55	13	1,329.55	.....	.....
Burlington, Iowa.....	51	4,987.01	42	4,506.75	9	480.26	56	5,718.95	43	5,059.39	13	659.56
Dubuque, Iowa.....	28	5,100.10	27	5,050.44	1	49.66	29	6,408.82	28	6,355.26	1	53.56
Minnesota.....	61	7,758.76	47	5,986.17	14	1,772.59	61	6,691.30	46	5,213.56	15	1,477.74
Lacrosse, Wisconsin.....	50	4,191.55	45	3,768.56	5	422.99	54	4,639.76	47	3,884.03	7	755.73
Galena, Illinois.....	29	3,243.23	26	3,102.70	3	140.53	30	3,270.13	27	3,129.60	3	140.53
Evansville, Indiana.....	60	8,166.47	60	8,166.47	.....	.....	54	6,950.76	54	6,950.76	.....	.....
Cincinnati, Ohio.....	116	32,751.31	116	32,751.31	.....	.....	115	31,406.87	115	31,406.87	.....	.....
Wheeling, West Virginia.....	109	11,611.52	109	11,611.52	.....	.....	94	9,768.97	94	9,768.97	.....	.....
Pittsburg, Pennsylvania.....	155	32,872.40	155	32,872.40	.....	.....	152	32,263.23	152	32,263.23	.....	.....

RECAPITULATION FOR THE 10 YEARS.

YEARS.	TOTAL.		STEAMERS.		BARGES.	
	Number.	Tonnage.	Number.	Tonnage.	Number.	Tonnage.
1880.....	2,295	473,792.03	1,225	256,915.99	1,070	216,876.04
1881.....	1,424	393,946.89	1,191	246,997.37	233	146,949.52
1882.....	1,438	389,644.39	1,226	249,210.10	212	140,434.29
1883.....	1,312	361,047.68	1,163	243,317.19	149	117,730.49
1884.....	1,302	356,263.61	1,157	241,007.35	145	115,256.26
1885.....	1,289	346,054.19	1,149	231,675.84	140	114,378.35
1886.....	1,247	334,810.06	1,105	221,088.76	142	113,721.30
1887.....	1,292	327,313.55	1,144	217,941.56	148	109,371.99
1888.....	1,253	304,990.93	1,122	214,035.55	131	90,955.38
1889.....	1,246	299,335.54	1,114	209,826.07	132	89,509.47

RIVERS OF THE MISSISSIPPI VALLEY.

453

TABLE 26.—NUMBER, AGGREGATE TONNAGE, AND AVERAGE VESSEL TONNAGE OF ALL STEAMERS REGISTERED AT THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY IN THE YEARS 1880 TO 1889, INCLUSIVE. (a)

CUSTOMS DISTRICTS.	1880			1881			1882			1883			1884		
	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.
New Orleans, Louisiana....	167	29,413	176	171	30,732	180	172	28,076	163	132	21,199	161	138	20,835	151
Natchez, Mississippi.....	3	192	64				5	254	51	4	240	60	4	452	113
Vicksburg, Mississippi.....	27	2,963	110				3	45	15	28	3,583	128	30	3,299	110
Memphis, Tennessee.....	66	10,780	163	65	11,303	174	65	10,426	160	73	11,503	158	73	14,977	205
Nashville, Tennessee.....	26	3,621	139	29	4,599	159	15	2,528	169	18	3,876	215	22	4,020	183
Chattanooga, Tennessee.....							13	1,567	121	17	1,936	114	16	2,772	173
Louisville, Kentucky.....	53	17,730	335	58	17,539	302	60	17,938	290	57	18,118	318	53	18,175	343
Paducah, Kentucky.....													9	652	72
Saint Louis, Missouri.....	162	59,699	369	153	54,393	356	163	57,933	355	160	62,350	390	136	55,346	407
Kansas city, Missouri.....										1	113	113	11	1,129	103
Saint Joseph, Missouri.....															
Burlington, Iowa.....	31	2,414	78	42	4,624	110	43	4,305	100	45	4,816	107	46	4,985	108
Dubuque, Iowa.....	29	3,697	127	31	3,757	121	24	3,370	140	27	4,720	175	22	4,368	199
Lacrosse, Wisconsin.....	39	6,201	150	44	6,599	150	45	6,409	142	35	3,028	87	43	3,626	84
Minnesota (b).....	48	5,873	122	45	6,004	133	48	6,452	134	46	6,328	138	48	6,765	141
Galena, Illinois.....	25	2,267	91	23	2,120	92	23	2,518	109	25	2,772	111	23	2,319	101
Cairo, Illinois.....	28	4,323	154	31	3,849	124	30	3,499	117	31	3,669	118	24	3,999	167
Evansville, Indiana.....	66	5,709	87	60	5,565	93	58	5,843	101	64	6,052	95	67	8,710	130
Cincinnati, Ohio.....	116	39,931	344	110	38,629	351	114	37,487	329	110	35,013	318	101	31,610	313
Wheeling, West Virginia..	142	16,712	118	137	16,056	117	144	17,330	120	110	14,705	134	109	14,584	134
Pittsburg, Pennsylvania...	168	39,483	235	160	34,509	216	169	36,467	216	157	34,803	222	163	34,597	212
Omaha, Nebraska.....	29	5,887	203	32	6,720	210	32	6,763	211	23	4,494	195	19	3,787	199

CUSTOMS DISTRICTS.	1885			1886			1887			1888			1889		
	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.	Num-ber.	Tonnage.	Aver-age.
New Orleans, Louisiana....	127	20,148	159	125	20,396	163	129	19,809	154	127	19,447	153	126	19,249	153
Natchez, Mississippi.....	3	303	101	3	303	101	3	303	101	4	592	148	4	592	148
Vicksburg, Mississippi.....	32	3,638	114	30	2,556	85	30	2,723	91	30	2,932	98	30	2,876	96
Memphis, Tennessee.....	72	13,807	192	70	13,775	197	82	14,902	182	66	11,167	169	71	12,114	171
Nashville, Tennessee.....	16	3,563	223	19	4,088	215	17	3,469	204						
Chattanooga, Tennessee.....	18	3,053	170	15	2,065	178	17	3,547	209	20	4,048	202	22	3,966	180
Louisville, Kentucky.....	56	15,902	284	57	14,998	263	55	12,177	221	45	11,025	245	52	11,938	230
Paducah, Kentucky.....	18	1,413	79	23	3,496	152	29	4,270	147	42	6,556	156	53	8,781	166
Saint Louis, Missouri.....	141	53,052	376	129	49,739	386	132	47,153	357	123	46,210	376	115	42,827	372
Kansas city, Missouri.....	11	1,125	102	13	1,160	89	13	1,165	90	13	1,185	91	16	1,781	111
Saint Joseph, Missouri.....	3	297	99	4	688	172	6	747	125	6	360	62	6	341	57
Burlington, Iowa.....	45	4,829	107	45	4,909	109	43	4,656	108	42	4,507	107	43	5,059	118
Dubuque, Iowa.....	23	4,300	187	24	4,565	190	22	4,371	190	27	5,050	187	28	6,355	227
Lacrosse, Wisconsin.....	40	3,667	92	41	3,383	83	45	3,655	81	45	3,769	84	47	3,884	83
Minnesota.....	44	5,910	134	46	6,431	140	49	6,505	133	47	5,986	127	46	5,214	113
Galena, Illinois.....	24	2,527	105	23	2,543	111	26	3,047	117	26	3,103	119	27	3,130	116
Cairo, Illinois.....	18	3,508	195												
Evansville, Indiana.....	60	8,728	145	55	8,199	149	53	7,310	138	60	8,166	136	54	6,951	129
Cincinnati, Ohio.....	110	32,747	298	106	31,504	298	107	30,536	285	116	32,751	282	115	31,407	273
Wheeling, West Virginia..	112	13,479	120	101	10,475	104	109	11,951	110	109	11,612	107	94	9,769	104
Pittsburg, Pennsylvania...	155	31,667	204	154	31,490	204	158	32,712	207	155	32,872	212	152	32,263	212
Omaha, Nebraska.....	21	4,013	191	22	3,637	165	19	2,935	154	19	2,687	141	13	1,330	102

a Compiled from information furnished by commissioner of navigation.

b Comprising the ports of Saint Vincent and Saint Paul.

STATISTICS OF TRANSPORTATION.

TABLE 97.—AVERAGE ANNUAL NUMBER OF STEAMERS AND AVERAGE ANNUAL TONNAGE REGISTERED AT THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY IN THE YEARS 1880 TO 1889, INCLUSIVE, TOGETHER WITH THE INDICATED YEARS OF HIGHEST, LOWEST, AND MEAN REGISTRATION. (a)

CUSTOMS DISTRICTS.	Annual average number of vessels registered.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.	Annual average registered tonnage.	HIGHEST ABOVE AVERAGE.		LOWEST BELOW AVERAGE.		CLOSEST TO AVERAGE.		Fluctuation.
		Year.	Number.	Year.	Number.	Year.	Number.			Year.	Number of tons.	Year.	Number of tons.	Year.	Number of tons.	
New Orleans, Louisiana.....	141.40	1882	172	1886	125	1884	138	47	22,930.40	1881	30,732	1889	19,249	1883	21,199	11.483
Natchez, Mississippi.....	3.67	1882	5	1880	3	1883	4	2	359.11	1888	592	1880	192	1885	303	400
Vicksburg, Mississippi.....	26.67	1885	32	1882	3	1880	27	29	2,735.00	1885	3,638	1886	2,556	1887	2,723	1.082
Memphis, Tennessee.....	70.30	1887	82	1881	65	1886	70	17	12,475.40	1884	14,977	1882	10,426	1889	12,114	4.551
Nashville, Tennessee.....	20.25	1881	29	1882	15	1886	19	14	3,720.50	1881	4,599	1882	2,528	1880	3,621	2.071
Chattanooga, Tennessee.....	17.25	1889	22	1882	13	1883	17	9	2,944.25	1888	4,048	1882	1,567	1885	3,053	2.481
Louisville, Kentucky.....	54.60	1882	60	1888	45	1887	55	15	15,556.00	1884	18,175	1888	11,025	1885	15,902	7.130
Paducah, Kentucky.....	29.00	1889	53	1884	9	1887	29	44	4,194.67	1889	8,781	1884	652	1887	4,270	8.129
Saint Louis, Missouri.....	141.40	1882	163	1889	115	1885	141	48	52,870.20	1883	62,350	1889	42,827	1885	53,052	19.523
Kansas city, Missouri.....	11.14	1889	16	1883	1	1884	11	15	1,094.00	1889	1,781	1883	113	1885	1,125	1.068
Saint Joseph, Missouri.....	5.00	1887	6	1885	3	1887	6	3	488.40	1887	747	1885	297	1888	369	450
Burlington, Iowa.....	42.50	1884	46	1880	31	1881	42	15	4,510.40	1889	5,059	1880	2,414	1888	4,507	2.645
Dubuque, Iowa.....	25.70	1881	31	1884	22	1883	27	9	4,455.30	1889	6,355	1882	3,370	1887	4,371	2.985
Lacrosse, Wisconsin.....	42.40	1889	47	1883	35	1884	43	12	4,422.10	1881	6,599	1883	3,028	1889	3,884	3.571
Minnesota (b).....	46.70	1887	49	1885	44	1888	47	5	6,146.80	1884	6,765	1889	5,214	1881	6,004	1.351
Galena, Illinois.....	24.50	1889	27	1881	23	1885	24	4	2,634.60	1889	3,130	1881	2,120	1886	2,543	1.010
Cairo, Illinois.....	27.00	1881	31	1885	18	1880	28	13	3,807.83	1880	4,323	1882	3,499	1881	3,849	824
Evansville, Indiana.....	59.70	1884	67	1887	53	1881	60	14	7,123.30	1885	8,728	1881	5,565	1889	6,951	3.183
Cincinnati, Ohio.....	110.50	1880	116	1884	101	1881	110	15	34,170.50	1880	39,931	1887	30,536	1883	35,013	9.395
Wheeling, West Virginia.....	116.70	1882	144	1889	94	1885	112	50	13,667.30	1882	17,330	1889	9,799	1885	13,479	7.561
Pittsburg, Pennsylvania.....	159.10	1882	169	1889	152	1881	160	17	34,086.30	1880	39,483	1886	31,490	1881	34,509	7.993
Omaha, Nebraska.....	22.90	1881	32	1889	13	1883	23	19	4,225.30	1882	6,763	1889	1,330	1885	4,013	5.433

a Compiled from information furnished by commissioner of navigation.

b Comprising ports of Saint Vincent and Saint Paul.

RIVERS OF THE MISSISSIPPI VALLEY.

455

TABLE 28.—COMPARATIVE STATISTICS.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING THE YEARS 1880 TO 1889, INCLUSIVE, TOGETHER WITH DATA SHOWING THE NUMBER AND TONNAGE OF SIDE-WHEEL STEAMERS, STERN-WHEEL STEAMERS, AND PROPELLERS BUILT DURING EACH YEAR AT EACH PORT. (a)

1880.

CUSTOMS DISTRICTS.	CLASS.						METHOD OF STEAMERS' PROPULSION.							
	Total.		Steamers.		Barges.		Total.		Side-wheel.		Stern-wheel.		Propeller.	
	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.
Total	135	32,791.31	117	23,930.92	18	8,860.39	117	23,930.92	30	11,449.60	75	11,791.60	12	689.72
New Orleans, Louisiana	7	448.09	7	448.09			7	448.09			2	86.51	5	361.58
Memphis, Tennessee	5	434.50	5	434.50			5	434.50			5	434.50		
Nashville, Tennessee	4	390.36	4	390.36			4	390.36			4	390.36		
Louisville, Kentucky	21	8,953.93	17	5,302.11	4	3,651.82	17	5,302.11	4	2,186.02	12	3,069.69	1	46.40
Saint Louis, Missouri	22	3,755.27	18	2,023.52	4	1,731.75	18	2,023.52	10	1,647.88	8	375.64		
Dubuque, Iowa	1	456.96	1	456.96			1	456.96			1	456.96		
Burlington, Iowa	3	155.61	3	155.61			3	155.61			2	146.60	1	9.01
Omaha, Nebraska	1	78.08	1	78.08			1	78.08			1	78.08		
Lacrosse, Wisconsin	4	277.70	4	277.70			4	277.70			4	277.70		
Minnesota (b)	7	652.59	6	581.03	1	71.56	6	581.03			5	558.11	1	22.92
Cairo, Illinois	2	1,513.14	2	1,513.14			2	1,513.14	1	1,477.27	1	35.87		
Galena, Illinois	1	16.34	1	16.34			1	16.34	1	16.34				
Evansville, Indiana	8	355.96	8	355.96			8	355.96			6	201.04	2	154.92
Cincinnati, Ohio	24	7,883.67	18	6,484.08	6	1,399.59	18	6,484.08	6	3,902.59	12	2,581.49		
Wheeling, West Virginia	12	1,083.70	12	1,083.70			12	1,083.70	3	334.92	7	653.89	2	94.89
Pittsburg, Pennsylvania	13	6,335.41	10	4,329.74	3	2,005.67	10	4,329.74	5	1,884.58	5	2,445.16		

1881.

Total	182	81,188.88	129	24,587.06	53	56,601.82	129	24,587.06	24	6,925.70	82	15,435.70	23	2,225.66
New Orleans, Louisiana	6	1,252.54	6	1,252.54			6	1,252.54	3	1,096.01			3	156.53
Memphis, Tennessee	8	945.15	8	945.15			8	945.15			7	903.18	1	41.97
Nashville, Tennessee	5	363.75	5	363.75			5	363.75			5	363.75		
Louisville, Kentucky	28	15,398.79	21	7,464.93	7	7,933.86	21	7,464.93	10	3,315.14	8	3,418.87	3	730.92
Saint Louis, Missouri	42	34,019.09	13	2,253.95	29	31,765.14	13	2,253.95	6	1,315.47	7	938.48		
Dubuque, Iowa	2	365.74	2	365.74			2	365.74			2	365.74		
Burlington, Iowa	2	219.20	2	219.20			2	219.20			1	178.82	1	40.38
Omaha, Nebraska	2	87.16	2	87.16			2	87.16			2	87.16		
Minnesota	4	418.35	4	418.35			4	418.35	1	237.09	2	150.71	1	30.55
Lacrosse, Wisconsin	3	100.11	3	100.11			3	100.11	2	83.20	1	16.91		
Cairo, Illinois	3	1,222.60	2	64.10	1	1,158.50	2	64.10			1	48.26	1	15.84
Galena, Illinois	1	10.30	1	10.30			1	10.30					1	10.30
Evansville, Indiana	4	346.46	4	346.46			4	346.46			2	227.47	2	118.99
Cincinnati, Ohio	29	15,625.75	17	4,209.93	12	11,415.82	17	4,209.93	1	555.50	10	2,863.21	6	791.22
Wheeling, West Virginia	17	4,075.01	15	2,057.19	2	2,017.82	15	2,057.19			11	1,768.23	4	288.06
Pittsburg, Pennsylvania	26	6,738.88	24	4,428.20	2	2,310.68	24	4,428.20	1	323.29	23	4,104.91		

1882.

Total	152	35,816.95	134	24,671.90	18	11,145.05	134	24,671.90	12	6,576.18	100	17,123.97	22	971.75
New Orleans, Louisiana	7	337.35	7	337.35			7	337.35	1	23.61	1	149.91	5	163.83
Memphis, Tennessee	6	249.85	6	249.85			6	249.85	1	8.99	3	199.52	2	41.34
Nashville, Tennessee	2	83.13	2	83.13			2	83.13	1	24.39	1	58.74		
Chattanooga, Tennessee	1	153.90	1	153.90			1	153.90			1	153.90		
Louisville, Kentucky	24	15,176.07	18	8,429.81	6	6,746.26	18	8,429.81	5	6,001.47	13	2,428.34		
Saint Louis, Missouri	20	3,281.81	11	1,439.50	9	1,842.31	11	1,439.50			9	1,264.92	2	174.58
Dubuque, Iowa	1	191.55	1	191.55			1	191.55			1	191.55		
Burlington, Iowa	2	253.62	2	253.62			2	253.62			1	234.16	1	19.46
Omaha, Nebraska	1	33.06	1	33.06			1	33.06					1	33.06
Lacrosse, Wisconsin	4	320.97	4	320.97			4	320.97			4	320.97		
Minnesota	4	489.43	3	373.28	1	116.15	3	373.28			3	373.28		
Cairo, Illinois	5	531.36	5	531.36			5	531.36			1	168.87	4	362.49
Galena, Illinois	4	468.64	4	468.64			4	468.64			4	468.64		
Evansville, Indiana	6	336.92	6	336.92			6	336.92	1	9.59	3	254.19	2	73.14
Cincinnati, Ohio	20	5,504.33	18	3,064.00	2	2,440.33	18	3,064.00	3	508.13	13	2,488.66	2	67.21
Wheeling, West Virginia	18	1,981.16	18	1,981.16			18	1,981.16			18	1,981.16		
Pittsburg, Pennsylvania	27	6,423.80	27	6,423.80			27	6,423.80			24	6,387.16	3	36.64

a Compiled from information furnished by commissioner of navigation.

b Comprising ports of Saint Vincent and Saint Paul.

STATISTICS OF TRANSPORTATION.

TABLE 28.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING THE YEARS 1880 TO 1889, INCLUSIVE, ETC.—Continued.

1883.

CUSTOMS DISTRICTS.	CLASS.						METHOD OF STEAMERS' PROPULSION.							
	Total.		Steamers.		Barges.		Total.		Side-wheel.		Stern-wheel.		Propeller.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total	125	26,442.92	116	20,879.07	9	5,563.85	116	20,879.07	18	6,388.03	76	12,890.00	22	1,601.04
New Orleans, Louisiana	8	482.22	8	482.22			8	482.22	1	155.58	4	238.69	3	87.75
Memphis, Tennessee	10	582.04	10	582.04			10	582.04	3	283.39	1	27.97	6	270.68
Nashville, Tennessee	3	224.10	3	224.10			3	224.10	2	154.83	1	69.27		
Chattanooga, Tennessee	3	448.29	3	448.29			3	448.29			3	448.29		
Louisville, Kentucky	22	11,629.74	18	7,946.57	4	3,683.17	18	7,946.57	2	1,950.23	11	5,215.87	5	771.47
Saint Louis, Missouri	7	1,538.57	6	1,343.76	1	194.81	6	1,343.76	2	914.61	2	313.81	2	115.34
Burlington, Iowa	4	289.74	4	289.74			4	289.74			3	246.50	1	43.24
Dubuque, Iowa	2	231.06	2	231.06			2	231.06					2	231.06
Omaha, Nebraska	3	221.68	3	221.68			3	221.68			3	221.68		
Minnesota	8	880.23	5	368.98	3	511.25	5	368.98	1	35.87	2	277.22	2	55.89
Cairo, Illinois	3	242.74	3	242.74			3	242.74			3	242.74		
Galena, Illinois	1	148.48	1	148.48			1	148.48			1	148.48		
Evansville, Indiana	8	372.21	8	372.21			8	372.21	2	74.08	6	298.13		
Cincinnati, Ohio	15	4,026.27	14	2,851.65	1	1,174.62	14	2,851.65	2	251.13	11	2,574.91	1	25.61
Wheeling, West Virginia	22	2,085.30	22	2,085.30			22	2,085.30	1	196.21	21	1,889.09		
Pittsburg, Pennsylvania	6	3,040.25	6	3,040.25			6	3,040.25	2	2,363.10	4	677.15		

1884.

Total	93	16,664.32	91	16,219.44	2	444.88	91	16,219.44	12	3,786.24	70	12,075.66	9	357.54
New Orleans, Louisiana	6	504.19	6	504.19			6	504.19			1	218.01	5	296.18
Vicksburg, Mississippi	1	110.34	1	110.34			1	110.34			1	110.34		
Memphis, Tennessee	4	522.44	4	522.44			4	522.44			4	522.44		
Nashville, Tennessee	2	384.93	2	384.93			2	384.93			2	384.93		
Chattanooga, Tennessee	1	32.72	1	32.72			1	32.72			1	32.72		
Louisville, Kentucky	15	6,105.72	15	6,105.72			15	6,105.72	3	2,677.31	12	3,428.41		
Saint Louis, Missouri	7	910.88	5	466.00	2	444.88	5	466.00	2	221.04	2	237.11	1	7.85
Burlington, Iowa	1	96.89	1	96.89			1	96.89			1	96.89		
Dubuque, Iowa	1	26.92	1	26.92			1	26.92					1	26.92
Omaha, Nebraska	3	73.17	3	73.17			3	73.17			3	73.17		
Minnesota	2	102.64	2	102.64			2	102.64	1	70.56	1	32.08		
Lacrosse, Wisconsin	4	236.73	4	236.73			4	236.73	1	61.10	1	139.04	2	36.59
Cairo, Illinois	1	31.74	1	31.74			1	31.74			1	31.74		
Galena, Illinois	2	253.26	2	253.26			2	253.26	1	198.31	1	54.95		
Evansville, Indiana	6	538.57	6	538.57			6	538.57	1	43.70	5	494.87		
Cincinnati, Ohio	6	1,009.35	6	1,009.35			6	1,009.35	1	140.46	5	868.89		
Wheeling, West Virginia	13	1,332.13	13	1,332.13			13	1,332.13	2	373.76	11	958.37		
Pittsburg, Pennsylvania	18	4,391.70	18	4,391.70			18	4,391.70			18	4,391.70		

1885.

Total	81	11,220.37	81	11,220.37			81	11,220.37	6	4,342.18	65	6,137.95	10	740.24
New Orleans, Louisiana	8	367.73	8	367.73			8	367.73			5	257.82	3	109.91
Vicksburg, Mississippi	2	29.18	2	29.18			2	29.18			1	15.73	1	13.45
Memphis, Tennessee	5	380.66	5	380.66			5	380.66			5	380.66		
Chattanooga, Tennessee	1	31.30	1	31.30			1	31.30			1	31.30		
Louisville, Kentucky	15	4,273.00	15	4,273.00			15	4,273.00	2	2,200.32	13	2,072.68		
Saint Louis, Missouri	7	776.06	7	776.06			7	776.06	1	580.56	5	148.05	1	47.45
Kansas city, Missouri	1	20.45	1	20.45			1	20.45			1	20.45		
Omaha, Nebraska	2	60.55	2	60.55			2	60.55			2	60.55		
Burlington, Iowa	3	195.84	3	195.84			3	195.84			3	195.84		
Dubuque, Iowa	3	195.98	3	195.98			3	195.98	1	50.00	2	145.98		
Minnesota	1	103.54	1	103.54			1	103.54			1	103.54		
Cairo, Illinois	1	48.01	1	48.01			1	48.01			1	48.01		
Evansville, Indiana	5	281.94	5	281.94			5	281.94			4	217.98	1	63.96
Cincinnati, Ohio	10	2,375.99	10	2,375.99			10	2,375.99	2	1,511.30	6	451.98	2	412.71
Wheeling, West Virginia	13	1,237.02	13	1,237.02			13	1,237.02			12	1,225.20	1	11.62
Pittsburg, Pennsylvania	4	843.12	4	843.12			4	843.12			3	762.18	1	86.94

RIVERS OF THE MISSISSIPPI VALLEY.

457

TABLE 28.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING THE YEARS 1880 TO 1889, INCLUSIVE, ETC.—Continued.

1886.

CUSTOMS DISTRICTS.	CLASS.						METHOD OF STEAMERS' PROPULSION.							
	Total.		Steamers.		Barges.		Total.		Side-wheel.		Stern-wheel.		Propeller.	
	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.	Num-ber.	Tonnage.
Total	76	10,594.93	70	9,699.70	6	895.23	70	9,699.70	8	1,333.42	58	8,226.71	4	139.57
New Orleans, Louisiana	2	95.87	2	95.87			2	95.87			1	36.80	1	59.07
Vicksburg, Mississippi	2	63.80	2	63.80			2	63.80			2	63.80		
Memphis, Tennessee	8	818.27	8	818.27			8	818.27	3	271.78	5	546.49		
Nashville, Tennessee	2	131.67	2	131.67			2	131.67			2	131.67		
Chattanooga, Tennessee	2	505.91	2	505.91			2	505.91			2	505.91		
Paducah, Kentucky	2	305.20	2	305.20			2	305.20			2	305.20		
Louisville, Kentucky	11	2,269.87	11	2,269.87			11	2,269.87	1	714.87	10	1,555.00		
Saint Louis, Missouri	2	86.68	2	86.68			2	86.68	1	14.04	1	72.64		
Kansas city, Missouri	1	25.81	1	25.81			1	25.81			1	25.81		
Omaha, Nebraska	2	50.52	2	50.52			2	50.52			2	50.52		
Burlington, Iowa	5	303.56	2	144.07	3	159.49	2	144.07			2	144.07		
Dubuque, Iowa	2	260.35	2	260.35			2	260.35			2	260.35		
Minnesota	4	309.06	3	235.20	1	73.86	3	235.20			2	212.55	1	22.65
Lacrosse, Wisconsin	4	142.57	4	142.57			4	142.57	1	24.47	2	90.88	1	27.22
Galena, Illinois	1	35.00			1	35.00								
Evansville, Indiana	1	235.20	1	235.20			1	235.20			1	235.20		
Cincinnati, Ohio	5	1,344.92	4	718.04	1	626.88	4	718.04			4	718.04		
Wheeling, West Virginia	8	724.25	8	724.25			8	724.25	1	39.93	6	653.69	1	30.63
Pittsburg, Pennsylvania	12	2,886.42	12	2,886.42			12	2,886.42	1	268.33	11	2,618.00		

1887.

Total	79	10,900.93	69	10,167.73	10	733.20	69	10,167.73	6	2,170.69	55	7,872.06	8	124.66
New Orleans, Louisiana	4	89.37	4	89.37			4	89.37			2	52.38	2	36.99
Vicksburg, Mississippi	1	22.27	1	22.27			1	22.27			1	22.27		
Memphis, Tennessee	9	610.78	9	610.78			9	610.78			7	592.02	2	18.76
Chattanooga, Tennessee	1	565.34	1	565.34			1	565.34			1	565.34		
Paducah, Kentucky	1	235.20	1	235.20			1	235.20			1	235.20		
Louisville, Kentucky	15	4,422.82	14	4,240.80	1	182.02	14	4,240.80	2	1,950.73	12	2,290.07		
Saint Louis, Missouri	4	70.08	4	70.08			4	70.08	1	23.16	2	28.52	1	18.40
Kansas city, Missouri	1	21.86	1	21.86			1	21.86			1	21.86		
Burlington, Iowa	5	184.42			5	184.42								
Dubuque, Iowa	1	89.00			1	89.00								
Minnesota	8	487.53	7	413.42	1	74.11	7	413.42			6	373.17	1	40.25
Lacrosse, Wisconsin	4	213.93	2	10.28	2	203.65	2	10.28					2	10.28
Evansville, Indiana	5	634.81	5	634.81			5	634.81			5	634.81		
Cincinnati, Ohio	4	501.95	4	501.95			4	501.95	1	65.73	3	436.22		
Wheeling, West Virginia	6	503.86	6	503.86			6	503.86	1	52.93	5	450.93		
Pittsburg, Pennsylvania	10	2,247.71	10	2,247.71			10	2,247.71	1	78.44	9	2,169.27		

1888.

Total	84	11,859.15	74	11,371.56	10	487.59	74	11,371.56	9	4,312.73	59	6,830.91	6	227.92
New Orleans, Louisiana	6	391.91	6	391.91			6	391.91			5	265.33	1	126.58
Memphis, Tennessee	8	1,371.10	8	1,371.10			8	1,371.10	2	1,196.67	6	174.43		
Nashville, Tennessee	1	102.48	1	102.48			1	102.48			1	102.48		
Chattanooga, Tennessee	5	810.53	5	810.53			5	810.53			5	810.53		
Paducah, Kentucky	3	493.75	3	493.75			3	493.75			3	493.75		
Louisville, Kentucky	13	4,532.43	12	4,351.42	1	181.01	12	4,351.42	4	2,956.39	8	1,395.03		
Saint Louis, Missouri	3	35.13			3	35.13								
Kansas city, Missouri	1	80.35	1	80.35			1	80.35			1	80.35		
Saint Joseph, Missouri	1	19.36	1	19.36			1	19.36			1	19.36		
Dubuque, Iowa	2	237.66	2	237.66			2	237.66			2	237.66		
Minnesota	7	334.57	6	311.92	1	22.65	6	311.92			5	301.95	1	9.97
Lacrosse, Wisconsin	3	235.67	1	121.92	2	113.75	1	121.92			1	121.92		
Galena, Illinois	2	63.16	1	46.63	1	16.53	1	46.63	1	46.63				
Evansville, Indiana	5	185.57	5	185.57			5	185.57	1	20.49	2	136.49	2	28.59
Cincinnati, Ohio	4	314.62	4	314.62			4	314.62	1	92.55	3	222.07		
Wheeling, West Virginia	12	1,064.57	12	1,064.57			12	1,064.57			10	1,001.79	2	62.78
Pittsburg, Pennsylvania	8	1,586.29	6	1,467.77	2	118.52	6	1,467.77			6	1,467.77		

STATISTICS OF TRANSPORTATION.

TABLE 98.—COMPARATIVE STATISTICS—Continued.

NUMBER AND TONNAGE OF ALL STEAMERS AND BARGES BUILT IN THE CUSTOMS DISTRICTS OF THE MISSISSIPPI VALLEY DURING THE YEARS 1880 TO 1889, INCLUSIVE, ETC.—Continued.

1889. .

CUSTOMS DISTRICTS.	CLASS.						METHOD OF STEAMERS' PROPULSION.							
	Total.		Steamers.		Barges.		Total.		Side-wheel.		Stern-wheel.		Propeller.	
	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.	Num- ber.	Tonnage.
Total	83	12,202.36	74	11,556.73	9	645.63	74	11,556.73	2	980.54	56	9,289.50	16	1,266.00
New Orleans, Louisiana.....	3	1,079.75	3	1,079.75			3	1,079.75	1	957.31			2	122.44
Memphis, Tennessee.....	7	1,101.98	7	1,101.98			7	1,101.98	1	23.23	6	1,078.75		
Chattanooga, Tennessee.....	3	134.88	3	134.88			3	134.88			2	112.61	1	22.27
Paducah, Kentucky	7	980.65	6	730.01	1	250.64	6	730.01			5	686.28	1	42.37
Louisville, Kentucky.....	14	4,392.15	14	4,392.15			14	4,392.15			14	4,392.15		
Saint Louis, Missouri.....	1	43.05	1	43.05			1	43.05			1	43.05		
Kansas city, Missouri.....	1	20.53	1	20.53			1	20.53			1	20.53		
Saint Joseph, Missouri.....	1	36.00	1	36.00			1	36.00			1	36.00		
Burlington, Iowa.....	4	157.11			4	157.11								
Dubuque, Iowa.....	5	724.08	4	670.52	1	53.56	4	670.52			2	644.60	2	25.92
Omaha, Nebraska.....	1	21.71	1	21.71			1	21.71			1	21.71		
Minnesota.....	5	432.28	3	330.06	2	102.22	3	330.06			2	317.86	1	12.39
Lacrosse, Wisconsin.....	5	353.29	4	271.19	1	82.10	4	271.19			4	271.19		
Galena, Illinois.....	2	175.62	2	175.62			2	175.62			1	142.76	1	32.86
Evansville, Indiana.....	2	92.40	2	92.40			2	92.40			1	68.08	1	24.32
Cincinnati, Ohio.....	8	1,082.90	8	1,082.90			8	1,082.90			1	79.97	7	1,002.93
Wheeling, West Virginia.....	6	493.42	6	493.42			6	493.42			6	493.42		
Pittsburg, Pennsylvania.....	8	880.56	8	880.56			8	880.56			8	880.56		

RECAPITULATION FOR THE 10 YEARS.

Total for 10 years.....	1,090	249,682.12	955	164,304.48	135	85,377.64	955	164,304.48	127	48,265.61	696	107,674.06	132	8,364.81
1880.....	135	32,791.31	117	23,930.92	18	8,860.39	117	23,930.92	30	11,449.60	75	11,791.60	12	639.72
1881.....	182	81,188.88	129	24,587.06	53	56,601.82	129	24,587.06	24	6,925.70	82	15,435.70	23	2,225.66
1882.....	152	35,816.95	134	24,671.90	18	11,145.05	134	24,671.90	12	6,576.18	100	17,123.97	22	971.75
1883.....	125	26,442.92	116	20,879.07	9	5,563.85	116	20,879.07	18	6,398.03	76	12,890.00	22	1,601.94
1884.....	93	16,664.32	91	16,219.44	2	444.88	91	16,219.44	12	3,786.24	70	12,075.66	9	357.54
1885.....	81	11,220.37	81	11,220.37			81	11,220.37	6	4,342.18	65	6,137.95	10	740.34
1886.....	76	10,594.93	70	9,699.70	6	895.23	70	9,699.70	8	1,333.42	58	8,226.71	4	139.57
1887.....	79	10,900.93	69	10,167.73	10	733.20	69	10,167.73	6	2,170.99	55	7,872.06	8	124.62
1888.....	84	11,859.15	74	11,371.56	10	487.59	74	11,371.56	9	4,312.73	59	6,830.91	6	227.12
1889.....	83	12,202.36	74	11,556.73	9	645.63	74	11,556.73	2	980.54	56	9,289.50	16	1,266.00

RIVERS OF THE MISSISSIPPI VALLEY.

459

TABLE 29.—CONGRESSIONAL APPROPRIATIONS.

ITEMIZED STATEMENT OF THE SUMS APPROPRIATED BY CONGRESS FOR THE SURVEYS, IMPROVEMENT, AND MAINTENANCE OF THE WATER WAYS AND HARBORS OF THE MISSISSIPPI VALLEY, BY PERIODS, FROM THE EARLIEST DATE OF APPROPRIATION TO 1890, INCLUSIVE. (a)

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Grand total.....	1819	\$28, 200, 707	\$39, 290, 556	\$9, 336, 200	\$76, 827, 463
Total for Upper Mississippi system	1832	12, 792, 679	13, 234, 510	3, 246, 000	29, 273, 189
Total for Ohio system	1827	9, 396, 351	10, 011, 921	2, 331, 000	21, 739, 272
Total for Lower Mississippi system	1827	4, 604, 677	15, 916, 125	3, 734, 200	24, 255, 002
Total for Red River of the North	1876	65, 000	128, 000	25, 000	218, 000
Miscellaneous	1819	1, 342, 000			1, 342, 000
UPPER MISSISSIPPI SYSTEM.					
Upper Mississippi:					
At sources	1879	25, 000	634, 500	80, 000	739, 500
Above Falls of Saint Anthony	1875	120, 000	45, 000	18, 000	183, 000
At Falls of Saint Anthony	1870	480, 000	60, 000		540, 000
Meekers island	1873	25, 000			25, 000
Saint Paul to Des Moines	1844	533, 600	1, 972, 500	500, 000	3, 006, 100
Des Moines rapids	1852	4, 268, 500	386, 250	22, 000	4, 676, 750
Rock Island rapids	1866	1, 150, 650	16, 000		1, 166, 650
Des Moines to mouth of Illinois	1852	150, 000	1, 131, 000	165, 000	1, 446, 000
Illinois to Ohio river	1836	1, 554, 600	2, 705, 000	582, 000	4, 841, 600
Snagging	1870	115, 000	280, 000		375, 000
Total for Upper Mississippi.....	1836	8, 422, 350	7, 210, 250	1, 367, 000	16, 999, 600
Tributaries:					
Galena	1878	42, 000	24, 000	5100, 000	166, 000
Fox and Wisconsin (c)	1839	2, 028, 714	771, 280	100, 000	2, 899, 974
Minnesota	1867	117, 500	10, 000		127, 500
Hennepin canal	1882		45, 000	500, 000	545, 000
Culvre	1880		12, 000		12, 000
Red Cedar	1839	1, 500			1, 500
Total for tributaries	1839	2, 189, 714	862, 280	700, 000	3, 751, 974
Total for Upper Mississippi	1836	8, 422, 350	7, 210, 250	1, 367, 000	16, 999, 600
Total for Upper Mississippi and tributaries	1836	10, 612, 064	8, 072, 510	2, 067, 000	20, 751, 574
Saint Croix	1878	18, 000	74, 500	8, 000	100, 500
Chippewa	1876	34, 465	128, 750	10, 000	173, 215
Illinois	1852	639, 150	947, 500	2, 000	1, 588, 650
Missouri:					
Upper	1876	100, 000	375, 000	300, 000	775, 000
Lower	1878	451, 500	2, 175, 000	800, 000	3, 426, 500
Whole river	1832	492, 500	1, 000, 000		1, 492, 500
Snagging	1836	200, 000	145, 000		345, 000
Surveys	1878	80, 000	115, 000		195, 000
Total for Missouri	1832	1, 324, 000	3, 810, 000	1, 100, 000	6, 234, 000
Tributaries:					
Osage	1871	140, 000	65, 000	55, 000	260, 000
Gasconade	1880		42, 500	4, 000	46, 500
Yellowstone	1879	25, 000	93, 750		118, 750
Total for tributaries	1871	165, 000	201, 250	59, 000	425, 250
Total for the Missouri	1832	1, 324, 000	3, 810, 000	1, 100, 000	6, 234, 000
Total for Missouri and tributaries	1832	1, 489, 000	4, 011, 250	1, 159, 000	6, 659, 250
Total for Upper Mississippi system	1832	12, 792, 679	13, 234, 510	3, 246, 000	29, 273, 189

a Compiled from information furnished by chief of engineers, United States army.

b Conditional.

c The appropriations were made "for the improvement of the water communication between Lake Michigan and the Mississippi river".

TABLE 29.—CONGRESSIONAL APPROPRIATIONS—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriation up to date.
OHIO SYSTEM.					
Ohio:					
General improvements.....	1835	\$2,731,500	\$2,459,250	\$300,000	85,490
Falls of Ohio and canal	1852	1,305,000	736,563	85,000	2,126
Together with purchase of Louisville and Portland canal.....	1873	1,250,000			1,250
Total for Ohio.....	1835	5,286,500	3,195,813	385,000	8,867
Tributaries:					
Guyandotte.....	1878	3,000	11,500	2,000	16
Licking.....	1888		3,000	3,000	6
Beaver River dam	1890			250,000	250
Tradewater.....	1881		16,500		16
Total for tributaries	1878	3,000	31,000	255,000	289
Total for Ohio	1835	5,286,500	3,195,813	385,000	8,867
Total for Ohio and tributaries	1835	5,289,500	3,226,813	640,000	9,156
Allegheny	1879	10,000	222,500	20,000	252
Monongahela	1872	187,000	406,733	162,000	755
Cheat.....	1890			13,000	13
Buckhannon.....	1884		4,500	1,000	5
Total for Monongahela and tributaries	1872	187,000	411,233	176,000	774
Muskingum	1879	30,000	389,500	30,000	449
Little Kanawha	1876	43,300	127,875	40,000	211
Great Kanawha.....	1873	992,000	1,337,500	300,000	2,629
Harbor at mouth of.....	1884		15,000		15
Elk.....	1875	10,500	16,000	2,500	29
Gauley	1888		3,000	3,000	6
Total for Great Kanawha and tributaries.....	1873	1,002,500	1,371,500	305,500	2,679
Big Sandy	1878	24,000	241,500	31,000	296
Tug fork	1890			2,500	2,500
Levisa fork.....	1890			2,500	2,500
Total for Big Sandy and tributaries	1878	24,000	241,500	36,000	301
Kentucky	1879	100,000	1,067,000	180,000	1,347
Green (purchase of locks and dams)	1888		135,000		135
Rough creek.....	1890			25,000	25
Total for Green and tributaries.....	1888		135,000	25,000	160
Wabash	1829	321,500	319,000	65,500	706
White, of Indiana.....	1879	25,000	82,000		107
Total for Wabash and tributaries.....	1829	346,500	401,000	65,500	813
Cumberland:					
Above Nashville.....	1876	151,000	470,000	250,000	871
Below Nashville	1832	340,000	80,000	40,000	460
South fork of	1882		12,000		12
Total for Cumberland.....	1832	491,000	562,000	290,000	1,343
Tributaries:					
Obey	1880		11,500		11
Caney fork.....	1880		22,500	2,500	25
Total for tributaries	1880		34,000	2,500	36
Total for Cumberland.....	1832	491,000	562,000	290,000	1,343
Total for Cumberland and tributaries.....	1832	491,000	596,000	292,500	1,379

RIVERS OF THE MISSISSIPPI VALLEY.

461

TABLE 29.—CONGRESSIONAL APPROPRIATIONS—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.*	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
OHIO SYSTEM—Continued.					
Tennessee:					
Below Chattanooga.....	1827	\$1,518,051	\$1,662,500	\$475,000	\$3,685,551
Above Chattanooga.....	1852	241,500	49,500	30,000	321,000
Total for Tennessee.....	1827	1,789,551	1,712,000	505,000	4,006,551
Tributaries:					
Duck.....	1880		13,000		13,000
Clinch.....	1880		31,000	4,000	35,000
Hiwassee.....	1876	23,000	10,000	1,500	34,500
French Broad, of Tennessee.....	1876	60,000	51,000	10,000	121,000
Little Tennessee.....	1882		5,000		5,000
Total for tributaries.....	1876	83,000	110,000	15,500	208,500
Total for Tennessee.....	1827	1,789,551	1,712,000	505,000	4,006,551
Total for Tennessee and tributaries.....	1827	1,872,551	1,822,000	520,500	4,215,051
Total for Ohio system.....	1827	9,396,351	10,011,921	2,331,000	21,739,272
LOWER MISSISSIPPI SYSTEM.					
For Mississippi (exclusive of passes) (a):					
From Ohio river to head of passes.....	1878	527,000	13,438,000	63,200,000	17,165,000
Dredging.....	1836	225,000	536,750		761,750
Water gauges.....	1876	15,000	36,700		51,700
Total for Lower Mississippi.....	1836	767,000	14,011,450	3,200,000	17,978,450
Bayous:					
Bartholomew.....	1881		28,000	5,000	33,000
Black.....	1881		25,000		25,000
Boeuf.....	1881		26,000	5,000	31,000
Courtableau.....	1880		29,000	2,200	31,200
D'Arbonne.....	1884		9,000	2,000	11,000
Lafourche.....	1852	22,500	60,000	50,000	132,500
Loggy.....	1884		10,000		10,000
Pierre.....	1884		13,600		13,600
Atchafalaya (c).....	1888				
Vidal.....	1880		1,000	1,000	2,000
Teche.....	1829	18,200	77,500	5,000	100,700
Terrebonne.....	1880		38,800		38,800
Steels.....	1884		7,500	2,500	10,000
Cypress.....	1872	94,000	23,000	10,000	127,000
Total for bayous.....	1829	134,700	348,400	82,700	565,800
Tributaries:					
Forked Deer, south fork of.....	1882		17,000	2,500	19,500
Saint Francis and Cache creek.....	1880		41,000	14,500	55,500
Big Black.....	1884		10,000	5,000	15,000
Big Hatchie.....	1880		27,000	5,000	32,000
L'Anguille.....	1878	15,000	2,000		17,000
Kaskaskia.....	1890			6,000	6,000
Little, of Missouri.....	1888		5,000	3,000	8,000
Total for tributaries.....	1878	15,000	102,000	36,000	153,000
Early appropriations for whole river, 1827 to 1879.....	1827	1,295,712			1,295,712
Total for tributaries.....	1878	15,000	102,000	36,000	153,000
Total for bayous.....	1829	134,700	348,400	82,700	565,800
Total for Lower Mississippi.....	1836	767,000	14,011,450	3,200,000	17,978,450
Total for Lower Mississippi, tributaries, and bayous.....	1827	2,212,412	14,461,850	3,318,700	19,992,962

a For the appropriations for the improvement at the mouth of the Mississippi, consisting of surveys, channel work, and jetties, amounting to \$7,597,500, see

b In the second session of Congress, in 1891, an additional \$1,000,000 was appropriated.

c Amount included in general appropriation for the Lower Mississippi.

TABLE 29.—CONGRESSIONAL APPROPRIATIONS—Continued.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
LOWER MISSISSIPPI SYSTEM—Continued.					
White, of Arkansas.....	1874	\$183,500	\$153,000	\$30,000	\$366,500
Tributaries:					
Current.....	1872	5,000	2,000		7,000
Black, of Missouri.....	1880		68,000	12,000	80,000
Little Red.....	1886		8,400		8,400
Total for tributaries.....	1872	5,000	78,400	12,000	95,400
Total for White.....	1874	183,500	153,000	30,000	366,500
Total for White and tributaries.....	1872	188,500	231,400	42,000	461,900
Arkansas:					
Above Fort Smith.....	1876	40,000	113,000		153,000
At Fort Smith.....	1876	20,000	18,000		38,000
At Pine Bluff.....	1880		131,000		131,000
From Little Rock to mouth.....	1884		19,000		19,000
General improvement.....	1832	512,500		180,000	692,500
Snagging.....	1878	35,000	175,875	20,000	230,875
Total for Arkansas.....	1832	607,500	456,875	200,000	1,264,375
Tributaries:					
Fourche la Pave.....	1879	10,000	16,000	500	26,500
Petit Jean.....	1886		6,000		6,000
Total for tributaries.....	1879	10,000	22,000	500	32,500
Total for Arkansas.....	1832	607,500	456,875	200,000	1,264,375
Total for Arkansas and tributaries.....	1832	617,500	478,875	200,500	1,296,875
Yazoo.....	1873	107,000	83,000	25,000	215,000
Tributaries:					
Big Sunflower.....	1879	23,000	32,000	5,000	57,000
Coldwater.....	1879	7,000	4,000	10,000	21,000
Tehula lake.....	1881		12,000	3,000	15,000
Yalgbusha.....	1881		11,000		11,000
Tallahatchie.....	1879	6,000	26,000	5,000	37,000
Total for tributaries.....	1879	33,000	85,000	23,000	141,000
Total for Yazoo.....	1873	107,000	83,000	25,000	215,000
Total for Yazoo and tributaries.....	1873	140,000	168,000	48,000	356,000
Washita and Black.....	1871	243,000	93,500	15,000	351,500
Little Missouri, of Arkansas.....	1871	20,000			20,000
Tenaga.....	1881		16,000	5,000	21,000
Saline.....	1880		21,500		21,500
Total for Washita, Black, and tributaries.....	1871	263,000	131,000	20,000	414,000
Red.....	1828	1,183,265	440,000	102,000	1,725,265
Tributaries:					
Little, of Louisiana.....	1888		2,500	3,000	5,500
Caney via Little.....	1884		2,500		2,500
Total for tributaries.....	1884		5,000	3,000	8,000
Total for Red.....	1828	1,183,265	440,000	102,000	1,725,265
Total for Red and tributaries.....	1828	1,183,265	445,000	105,000	1,733,265
Total for Lower Mississippi system.....	1827	4,604,677	15,916,125	3,734,200	24,255,002
RED RIVER OF THE NORTH.					
Total.....	1876	65,000	128,000	25,000	218,000
MISCELLANEOUS.					
Construction of snag and dredge boats.....	1852	846,000			846,000
Surveys.....	1819	286,000			286,000
Surveys and estimates of canal from Cumberland to mouth of Yonghlo-gheny, 1874 and 1875.	1874	210,000			210,000
Total for miscellaneous.....	1819	1,342,000			1,342,000

RIVERS OF THE MISSISSIPPI VALLEY.

463

TABLE 30.—CONGRESSIONAL APPROPRIATIONS.

STATEMENT BY TOTALS OF THE APPROPRIATIONS GIVEN BY LOCALIZED ITEMS IN THE PRECEDING TABLE.

LOCALITIES.	Date of earliest appropriation.	Appropriations up to and including 1879.	Appropriations from 1880 to 1889, inclusive.	Appropriations by act of Congress, September, 1890.	Total appropriations up to date.
Grand total for the Valley	1819	\$28,200,707	\$39,290,556	\$9,836,200	\$76,827,463
Mississippi	1836	10,612,064	8,072,510	2,067,000	20,751,574
Arkansas	1878	18,000	74,500	8,000	100,500
Alabama	1876	34,465	128,750	10,000	173,215
Florida	1852	639,150	947,500	2,000	1,588,650
Georgia	1832	1,489,000	4,011,250	1,159,000	6,659,250
Grand total for Upper Mississippi system	1832	12,792,679	13,234,510	3,246,000	29,273,189
Minnesota	1836	5,289,500	3,226,818	640,000	9,156,318
Wisconsin	1879	10,000	222,500	20,000	252,500
Illinois	1872	187,000	411,233	176,000	774,233
Iowa	1879	30,000	389,500	30,000	449,500
Nebraska	1876	43,300	127,875	40,000	211,175
Kansas	1873	1,002,500	1,371,500	305,500	2,679,500
Missouri	1878	24,000	241,500	36,000	301,500
Indiana	1879	100,000	1,067,000	180,000	1,347,000
Ohio	1868	135,000	135,000	25,000	300,000
Michigan	1829	346,500	401,000	65,500	813,000
Indiana	1832	491,000	596,000	292,500	1,379,500
Illinois	1827	1,872,551	1,822,000	520,500	4,215,051
Grand total for Ohio system	1827	9,396,351	10,011,921	2,331,000	21,739,272
Mississippi	1827	2,212,412	14,461,850	3,318,700	19,992,962
Alabama	1872	188,500	231,400	42,000	461,900
Arkansas	1832	617,500	478,875	200,500	1,296,875
Florida	1873	140,000	168,000	48,000	356,000
Georgia	1871	263,000	131,000	20,000	414,000
Grand total for Lower Mississippi system	1828	1,183,265	445,000	105,000	1,733,265
Grand total for Lower Mississippi system	1827	4,604,677	15,916,125	3,734,200	24,255,002
Grand total for the North	1876	65,000	128,000	25,000	218,000
Grand total	1819	1,342,000	.....	.....	1,342,000

STATISTICS OF TRANSPORTATION.

TABLE 31.—NAVIGABLE WATERS.

NUMBER OF NAVIGABLE MILES ON THE RIVERS OF THE MISSISSIPPI VALLEY AND NUMBER OF MILES OVER WHICH A
TRANSPORTATION BUSINESS WAS CONDUCTED IN 1889.

LOCALITIES.	Miles of operated rivers in 1889.	Miles of navigable rivers in 1889.	LOCALITIES.	Miles of operated rivers in 1889.	Miles of navigable rivers in 1889.
Grand total for the Valley	14,266	15,410	OHIO SYSTEM—Continued.		
Total for Upper Mississippi system.....	4,103	4,486	Big Sandy	26	26
Total for Ohio system.....	4,178	4,406	Tug fork.....	100	100
Total for Lower Mississippi system	5,695	6,228	Levisa fork.....	86	86
Total for Red River of the North.....	290	290	Total for Big Sandy and tributaries	212	212
UPPER MISSISSIPPI SYSTEM.			Kentucky.....	261	261
Upper Mississippi:			Green.....	150	150
Headwaters to Saint Louis.....	870	870	Rough creek (or Barren).....	25	25
Tributaries:			Total for Green and tributaries	175	175
Galeua.....		6	Wabash	185	185
Fox and Wisconsin		62	White, of Indiana	27	27
Minnesota.....	25	25	Total for Wabash and tributaries	210	210
Hennepin canal.....			Cumberland:		
Cuivre.....		15	Headwaters to mouth.....	578	578
Total for tributaries	25	108	Tributaries:		
Total for Upper Mississippi.....	870	870	Obey.....		58
Total for Upper Mississippi and tributaries	895	978	Caney fork.....	92	92
Saint Croix	120	120	Total for tributaries	92	150
Chippewa.....	57	57	Total for Cumberland.....	578	578
Illinois	225	225	Total for Cumberland and tributaries	670	728
Missouri:			Tennessee:		
Headwaters to Saint Louis	2,519	2,519	Headwaters to mouth.....	650	650
Tributaries:			Tributaries:		
Osage.....	200	200	Duck		67
Gasconade	87	87	Clinch	70	70
Yellowstone		300	Hiwassee	43	43
Total for tributaries	287	587	French Broad, of Tennessee.....	90	90
Total for the Missouri	2,519	2,519	Little Tennessee.....		13
Total for Missouri and tributaries.....	2,806	3,106	Total for tributaries.....	203	283
Total for Upper Mississippi system.....	4,103	4,486	Total for the Tennessee.....	650	650
OHIO SYSTEM.			Total for Tennessee and tributaries	853	933
Ohio:			Total for Ohio system.....	4,178	4,406
Pittsburg to the mouth	967	967	LOWER MISSISSIPPI SYSTEM.		
Tributaries:			Lower Mississippi:		
Guyandotte.....	80	80	From Saint Louis to head of passes	1,264	1,264
Licking.....	90	90	Bayous:		
Tradewater.....	22	22	Bartholomew	85	85
Total for tributaries	192	192	Black		14
Total for the Ohio.....	967	967	Bœuf	261	261
Total for Ohio and tributaries	1,159	1,159	Courtableau	25	25
Allegheny	180	180	D'Arbonne	43	43
Monongahela	102	102	Lafourche	110	110
Cheat		90	Loggy		
Buckhannon	48	48	Pierre	60	60
Total for Monongahela and tributaries	150	240	Teche.....		80
Muskingum	91	91	Terrebonne	46	46
Little Kanawha.....	49	49	Steels.....	85	85
Great Kanawha.....	96	96	Cypress.....		65
Elk	45	45	Total for bayous	715	874
Ganley	27	27	Tributaries:		
Total for Great Kanawha and tributaries	168	168	Forked Deer, south fork of		10
			Saint Francis and Cache creek, via White	285	285
			Big Black.....		65
			Big Hatchie		100
			L'Anguille via Saint Francis	38	38

RIVERS OF THE MISSISSIPPI VALLEY.

465

TABLE 31.—NAVIGABLE WATERS—Continued.
NUMBER OF NAVIGABLE MILES ON THE RIVERS OF THE MISSISSIPPI VALLEY, ETC.—Continued.

LOCALITIES.	Miles of operated rivers in 1889.	Miles of navigable rivers in 1889.	LOCALITIES.	Miles of operated rivers in 1889.	Miles of navigable rivers in 1889.
LOWER MISSISSIPPI SYSTEM—Continued.			LOWER MISSISSIPPI SYSTEM—Continued.		
Lower Mississippi tributaries—Continued.			Yazoo	173	173
Kaskaskia		24	Tributaries:		
Little, of Missouri, via Saint Francis	85	85	Big Sunflower	144	144
			Coldwater	25	25
Total for tributaries	408	607	Tchula lake		60
Total for bayous	715	874	Yalobusha		90
Total for Lower Mississippi	1,264	1,264	Tallahatchie	100	100
			Total for tributaries	269	419
Total for Lower Mississippi, bayous, and tribu- taries.	2,387	2,745	Total for Yazoo	173	173
			Total for Yazoo and tributaries	442	592
White, of Arkansas	300	300	Washita and Black	306	306
Tributaries:			Tributaries:		
Current			Little Missouri, of Arkansas		
Black, of Missouri	100	100	Tensas and Macon	130	130
Little Red	90	90	Saline	80	80
			Total for tributaries	210	210
Total for tributaries	190	190	Total for Washita and Black	306	306
Total for White	300	300	Total for Washita, Black, and tributaries	516	516
			Red:		
Total for White and tributaries	490	490	Headwaters to mouth	1,000	1,000
Arkansas:			Tributaries:		
Headwaters to mouth	771	771	Little, of Louisiana		25
Tributaries:			Total for tributaries		25
Fourche la Pave	44	44	Total for Red	1,000	1,000
Petit Jean	45	45	Total for Red and tributaries	1,000	1,025
			Total for Lower Mississippi system	5,695	6,228
Total for tributaries	89	89	RED RIVER OF THE NORTH.		
Total for the Arkansas	771	771	Total	290	290
Total for Arkansas and tributaries	860	860			

TRANSPORTATION ON CANALS AND CANALIZED RIVERS.

TRANSPORTATION ON CANALS AND CANALIZED RIVERS.

BY THOMAS J. VIVIAN.

The report made on canals for the Tenth Census treated so fully of their history that nothing more need be said upon that branch of the subject than will be found in the comparative statistics of 1880 and 1889, given herewith. The present Report on Canals and Canalized Rivers has been made to conform as nearly as possible with those on transportation on the coasts, lakes, and rivers. The figures are grouped under the heads of "Construction", "Floating Equipment", "Traffic", "Income and Expenditures", and "Comparative Statistics", the plan of the tables being as follows:

PLAN OF THE TABLES.

- Table 1.—Construction—Number of canals and canalized rivers, their dimensions, with date and cost of construction.
Table 2.—Floating equipment—Number, tonnage, and valuation of canal boats, with averages of tonnage and valuation.
Table 3.—Traffic—Freight carried on canals and canalized rivers.
Table 4.—Income and expenditures—Gross earnings, expenses, and net earnings of canals.
Table 5.—Comparative statistics—Operated mileage in 1880 and 1889.
Table 6.—Comparative statistics—Abandoned canals.
Table 7.—Comparative statistics—Traffic in 1880 and 1889.
Table 8.—Comparative statistics—Income and expenditures in 1880 and 1889.

The statistics of construction, equipment, traffic, and of income and expenditures are given for each reporting canal and by state totals, with segregations of the construction and traffic figures for state and corporation canals, United States government canals, and canalized rivers. By state canals is meant those works which are the property of the state in which they are located; by corporation canals is meant those works which belong to private parties or to companies. The United States government canals are those which were either built by the federal government or have become its property by purchase. By canalized rivers is meant those portions of watercourses which have been rendered navigable or whose navigation has been improved by the construction of locks and other works, with resulting slackwater.

Most of the state and corporation canals are used only for the transportation of freight in canal boats. Some of them, such as those used in Louisiana to connect the various bayous, are purely ship canals. The United States government canals are all ship canals, and the canalized rivers are grouped as such. The number and mileage of ship canals, including canalized rivers, are given in the accompanying summary:

TABLE A.—SUMMARY SHOWING THE NUMBER AND MILEAGE OF SHIP CANALS OF THE UNITED STATES.

CANALS AND CANALIZED RIVERS.	Number.	Mileage.
Total	48	1,479.63
State and corporation canals	18	360.96
United States canals	9	40.63
Canalized rivers	21	1,078.04

STATISTICS OF TRANSPORTATION.

In Table 1 the ownership of each state and corporation canal is shown, the following statement giving the facts in condensed form:

TABLE B.—STATEMENT SHOWING THE OWNERSHIP OF STATE AND CORPORATION CANALS.

STATES.	Owned by states. (Miles.)	Owned by corporations. (Miles.)
Total	1,320.66	943.04
New York	560.66	86.00
New Jersey		171.02
Pennsylvania		464.98
Delaware		14.00
Maryland		15.00
Virginia		67.44
North Carolina		13.00
Georgia		25.00
Florida		10.50
Louisiana		38.25
Texas		38.00
Ohio	658.00	
Illinois	102.00	
Oregon		0.75

The ownership of the United States government canals is indicated in the title. In the case of the canalized rivers the ownership is that of the public works whose construction has resulted in the mileage of slackwater navigation set opposite each improved stream. These facts are condensed as follows:

TABLE C.—STATEMENT SHOWING THE OWNERSHIP OF THE PUBLIC WORKS ON CANALIZED RIVERS, WITH THE MILEAGE OF THE RESULTING SLACKWATER NAVIGATION.

STATES.	Owned by states. (Miles.)	Owned by corporations. (Miles.)	Owned by United States government. (Miles.)
Total	165.20	131.00	781.84
Maine	7.00		
New York	70.20		
Pennsylvania		91.00	23.00
Virginia			11.50
West Virginia		40.00	58.00
Ohio			75.00
Illinois	88.00		139.00
Iowa			4.40
Wisconsin			169.40
Kentucky			286.50
Tennessee			14.40
Alabama			0.04
Oregon			0.60

The term "construction", referred to in the preceding plan of the tables, is used to include the number of works operated, length in miles, the number of locks, and the cost and date of original construction and of improvement, the totals of these statistics being given in the subjoined statement:

TABLE D.—SUMMARY SHOWING THE OPERATED MILEAGE, NUMBER OF LOCKS, AND COST OF CANALS AND CANALIZED RIVERS.

CANALS AND CANALIZED RIVERS.	Number.	OPERATED MILEAGE.			Number of locks.	Cost of con- struction and improvement.
		Total.	Canals.	Canalized rivers.		
Total	67	3,383.27	2,305.23	1,078.04	1,097	\$188,185,880
State and corporation canals	37	2,264.60	2,264.60		982	150,481,825
United States canals	9	40.63	40.63		26	20,517,133
Canalized rivers	21	1,078.04		1,078.04	89	17,186,922

The floating equipment of canals, that is, the boats which can be considered as belonging to and as employed exclusively on canals, is here limited to state and corporation canals. The bulk of the equipment is made up of towed boats, although there is a slowly growing fleet of steamboats which are used chiefly as an experiment in motive power. The number, gross tonnage, and estimated valuation of both classes of canal boats are given in the accompanying summary:

TABLE E.—SUMMARY SHOWING NUMBER, TONNAGE, AND VALUATION OF CANAL BOATS.

CANAL BOATS.	Number.	Tonnage.	Valuation.
Towed.....	6,376	964,509	\$5,300,914
Steam.....	138	14,676	453,000

The transportation movement on canals is now confined to that of freight, the amount in tons carried on all canals in the year of report being 48,668,325. The proportion of freight carried on state and corporation canals or United States government canals and on canalized rivers is shown in the following summary:

TABLE F.—SUMMARY SHOWING THE NUMBER OF TONS OF FREIGHT CARRIED ON CANALS AND CANALIZED RIVERS.

	TONS.
Total.....	48,668,325
State and corporation canals.....	13,269,600
United States government canals.....	28,507,069
Canalized rivers.....	6,891,656

While the amount of freight carried on the United States government canals and on canalized rivers is included in the reports of the lakes and rivers, it also forms a constituent of the canal traffic of the country. The figures are therefore given here, but are not included in the total for the United States except in the lake and river trade. A portion of the freight moved on state and corporation canals has also been originally reported elsewhere and has been similarly treated, the freight actually carried on canal boats and not reported elsewhere amounting to 10,504,896 tons. The distribution of this duplicated tonnage according to the localities of original report is shown in the following table:

TABLE G.—STATEMENT OF FREIGHT MOVED ON CANALS, BUT ORIGINALLY REPORTED IN OTHER DIVISIONS OF TRANSPORTATION ON WATER.

CANALS AND CANALIZED RIVERS.	Where originally reported.	Freight moved. (Tons.)
Total.....		38,163,429
State and corporation canals.....	Atlantic coast and Gulf of Mexico.....	2,728,014
	Pacific coast.....	36,690
		2,764,704
United States government canals.....	Great lakes.....	27,491,869
	Mississippi valley.....	1,015,200
		28,507,069
Canalized rivers.....	Great lakes.....	346,475
	Mississippi valley.....	6,545,181
		6,891,656

The gross earnings, expenses, and net earnings, which make up the table entitled "Income and Expenditures", are only those of the state and corporation canals, neither the United States government canals nor the canalized rivers reporting any income and expense account; for, while it is a fact that both of the latter waterways require an expenditure for their maintenance, the amount so laid out is from appropriations by the United States, and the receipts from tolls form an income account which can not be considered that of transportation. The gross income of state and corporation canals amounted to \$4,089,132.26, the sources being either tolls or lockage. The expenditures amounted to \$2,122,376, and were made up of the maintenance of waterways and structure, wages, provisions, fuel, and keep of stock. The net income stood at \$1,966,756.26.

The 4 tables of comparative statistics show the variations of operated mileage, the extent of traffic, and the income and expenditures for the 2 years 1880 and 1889 and the mileage of abandoned canals. A comparison of mileage shows that the total operated mileage in 1880 was 3,235.78 and in 1889 3,383.27, an increase of 147.49 miles. This increased mileage is in the United States government canals and canalized rivers, the mileage of the state and corporation canals having decreased, as shown in the summary on the following page.

STATISTICS OF TRANSPORTATION.

TABLE H.—STATEMENT SHOWING THE INCREASE OR DECREASE IN THE OPERATED MILEAGE OF CANALS IN 1880 AND 1889.

CANALS AND CANALIZED RIVERS.	1880	1889	Increase.	Decrease.
State and corporation canals	2,746.18	2,264.60	.....	481.58
United States government canals	10.00	40.63	30.63	.....
Canalized rivers	479.60	1,078.04	598.44	.....
Total	3,235.78	3,383.27	629.07	481.58
Net increase			147.49	.....

The decreased mileage is nearly all that of state and corporation canals given up between 1880 and 1889 as shown in Table 6. The abandoned mileage and works are as follows:

	MILES.
Total mileage of abandoned canals between 1880 and 1889	261.69
Parts of the Erie canal	19.68
Parts of the Pennsylvania canal	140.00
Union canal	84.64
Alexandria and Georgetown canal	7.12
Parts of the Ohio canal	6.00
Parts of the Miami and Erie canal	10.25

The other changes which brought about the decrease of the 481.58 miles of state and corporation canals are these: the Black River canal in 1880 contained 42.50 miles of slackwater, which is now placed with the canalized river mileage; the Chesapeake and Ohio canal was washed out in 1889 and was not reopened until 1892; the St. Mary Falls canal, 1.02 miles, and the Lake Superior canal, 2.12 miles, were reported in 1880 as state and corporation canals, but in this report they are classed with the United States government canals. These decreases were offset by the extension of the Company's canal in Louisiana from 12 miles to 22.25 miles, and by the increase in the mileage of the United States government canals and in that of canalized rivers shown in detail in Table 5.

No report of equipment was made for canals in the Tenth Census, so that a comparison in that branch of the subject is not possible.

The freight traffic of the canals and canalized rivers reported to the Tenth and Eleventh censuses is shown in Table 7, the figures being summarized as follows:

TABLE I.—SUMMARY SHOWING THE FREIGHT TRAFFIC OF CANALS AND CANALIZED RIVERS OF THE UNITED STATES AS REPORTED IN 1880 AND 1889.

CANALS AND CANALIZED RIVERS.	1880 (Tons.)	1889 (Tons.)
Total	21,044,292	48,668,325
State and corporation canals	17,548,602	13,209,000
United States government canals		28,507,069
Canalized rivers	3,495,690	6,891,656

The decrease in the amount of freight carried on state and corporation canals in 1889, as compared with that carried in 1880, is due to the decrease of mileage by abandonment and temporary disuse of canals referred to in preceding paragraphs. The increase in the amount of freight carried on canalized rivers in 1889 over that of 1880 is due to the larger exploitation of this class of artificial waterway, and in 1880 no report was made of the freight passing through United States government canals.

In Table 8 will be found the statistics of income and expenditures as reported at the Tenth and Eleventh censuses, and from that table the following summary is derived:

TABLE J.—SUMMARY SHOWING THE GROSS INCOME AND EXPENDITURES OF CANALS OF THE UNITED STATES IN 1880 AND 1889.

ITEMS.	1880	1889
Gross income	\$4,302,185.00	\$4,089,132.26
Expenditures	2,875,335.00	2,122,376.00
Net income	1,426,850.00	1,966,756.26

In order to secure a closer presentation of the comparative business done and financial returns by canals in 1880 and 1889, Tables 7 and 8 have been prepared in such a way as to show the mileage for which these statistics were reported in both 1880 and 1889, that for which they were reported in either 1880 or 1889, and mileage for which no business was reported in either of these years.

The mileage in Tables 5 and 7 includes certain United States government canals and canalized rivers existing in 1880 that were not reported in the Tenth Census. The names and mileage are as follows:

TABLE K.—STATEMENT SHOWING THE UNITED STATES GOVERNMENT CANALS AND CANALIZED RIVERS EXISTING IN 1880 THAT WERE NOT REPORTED AT THE TENTH CENSUS.

	MILES.
United States government canals.....	10.00
Des Moines Rapids, Iowa.....	7.60
Louisville and Portland, Kentucky.....	2.40
Canalized rivers.....	299.60
Songo, Maine.....	7.00
Seneca, New York.....	7.70
Beaver, Pennsylvania.....	6.00
Upper Appomattox, Virginia.....	11.50
Great Kanawha, West Virginia.....	58.00
Little Kanawha, West Virginia.....	40.00
Fox, Wisconsin.....	160.40
Chippewa, Wisconsin.....	9.00

Table 8 is for canals only; the mileage includes the United States government canals existing in 1880 that were not reported in the Tenth Census, namely:

	MILES.
Total.....	10.00
Des Moines Rapids.....	7.60
Louisville and Portland.....	2.40

STATISTICS OF TRANSPORTATION.

TABLE 1.—CONSTRUCTION—NUMBER, DIMENSIONS, DATE OF CONSTRUCTION, AND COST OF STATE
SUMMARY.

CANALS AND CANALIZED RIVERS.			
1	Total		
2	State and corporation canals		
3	United States government canals		
4	Canalized rivers		
A.—STATE AND CORPORATION CANALS.			
STATES.	Canals.	Points connected.	When built.
1	Total		
2	New York		
3	Erie and branches (a)	Albany-Buffalo	1817-1825
4	Oswego (a)	Oswego-Syracuse	1825-1828
5	Cayuga and Seneca (a)	Montezuma-Cayuga and Seneca lakes	1825-1830
6	Champlain (a)	Whitehall-Waterford	1817-1822
7	Black River (a)	Rome-Lyons Falls	1836-1849
8	Delaware and Hudson	Rondout-Pennsylvania state line	1826-1828
9	New Jersey		
10	Delaware and Raritan (b)	New Brunswick-Bordentown	} 1834-1838
11	Delaware and Raritan Feeder	Bull Island-Trenton	
12	Morris	Jersey City-Easton, Pa	
13	Penn's Neck (b)	Salem creek-Delaware river	1800-1872
14	Pennsylvania		
15	Delaware and Hudson (see New York)	Columbia-Duncan Island	} 1826-1839
16	Susquehanna and Tidewater	Clark Ferry-Northumberland	
17	Schuylkill Navigation Company	Northumberland-Wilkesbarre	
18	Lehigh Coal and Navigation Company	Junction-Huntingdon	} 1826-1828
19	Delaware division	Northumberland-Flemington	
20	Muncy	Honesdale-New York state line	
21	Chesapeake and Delaware (b)	Columbia-Maryland state line	1837-1840
22	Susquehanna and Tidewater (see Pennsylvania)	Mill creek-Philadelphia	1816-1826
23	Albemarle and Chesapeake (b)	Coalport-Easton	1819-1821
24	Dismal Swamp (b)	Easton-Bristol	1830
25	North Carolina	Muncy-Pennsylvania canal	
26	Fairfield (b)	Delaware city, Del.-Chesapeake city, Md	1829
27	Newberne and Beaufort (b)	Havre de Grace-Pennsylvania state line	1837-1840
28	Albemarle and Chesapeake (see Virginia) (b)		
29	Georgia		
30	Augusta (b)	Norfolk-North Carolina state line	1855-1860
31	Ogeechee	Elizabeth river, Va.-Pasquotank river, N. C	1787-1794
32	Florida		
33	Santa Fe (b)		
34	Louisiana		
35	New Basin (b)	Alligator river-Mattamuskeet lake	1868
36	Old Basin (Carondelet) (b)	Clubfoot creek-Newport river	1830-1832
37	Harvey's (b)	Canjock bay-North river	1855-1860
38	Company's (b)		
39	Secolas (Tagliaferro) (b)		
40	Texas		
41	Galveston and Brazos (b)		
42	Ohio		
43	Ohio and branches (a)		
44	Walhonding (a)		
45	Hocking (a)		
46	Miami and Erie (a)		
47	Illinois		
48	Illinois and Michigan (a) (b)		
49	Oregon		
50	Willamette Transportation and Lock Company (b)		

a State canal.

ID CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS.

SUMMARY.

CANALS AND CANALIZED RIVERS.										
Length.			Width.		Depth. (Feet.)	Locks.				Cost of construction and improvement.
Total. (Miles.)	Canal. (Miles.)	Slackwater. (Miles.)	Surface. (Feet.)	Bottom. (Feet.)		Number.	Length. (Feet.)	Width. (Feet.)	Rise and fall. (Feet.)	
3,383.27	2,132.59	1,250.68				1,007				\$188,185,880
2,264.60	2,091.96	172.64				982				150,481,825
40.63	40.63					26				20,517,133
1,078.04		1,078.04				89				17,186,922

A.—STATE AND CORPORATION CANALS.

LENGTH.			WIDTH.		Depth. (Feet.)	LOCKS.				Cost of construction and improvement.
Total. (Miles.)	Canal. (Miles.)	Slackwater. (Miles.)	Surface. (Feet.)	Bottom. (Feet.)		Number.	Length. (Feet.)	Width. (Feet.)	Rise and fall. (Feet.)	
2,264.60	2,091.96	172.64				982				\$150,481,825
646.66	594.07	52.59				349				73,978,122
381.39	351.80	29.59	70	52½	7	72	110	18	656.46	52,540,800
38.00	18.00	20.00	70	56	7	18	110	18	155.55	5,239,526
24.77	24.77		70	56	7	11	110	18	76.58	2,232,632
81.00	81.00		58	44	6	32	110	18	179.50	4,044,000
35.50	35.50		42	28	4	109	90	15	1,080.00	3,581,954
86.00	83.00	3.00	48	32	6	107	100	15	1,028.00	6,339,210
171.02	171.02					47				10,929,749
66.00	66.00		60-80		6-7	14	220	24	150.00	4,888,749
103.00	103.00		45	25	5	33	88	20	1,674.00	6,000,000
2.02	2.02		100	75	5					41,000
404.98	414.93	50.05				264				32,020,122
193.00	193.00		40-100	25-32	4½-6	71	85-180	14-17	132.00 68.00 68.00 255.00 123.00	7,731,750
25.00	25.00									
30.00	30.00		50	30	5½	32	170	17	230.00	4,031,345
108.23	58.18	50.05	60	40	6½	71	110	18	619.00	12,461,600
108.00	108.00		44-60	26-45	6	90	90-100	11-22	375.00 165.00	6,888,350
0.75	0.75		40	25	4½					7,077
14.00	14.00		66		9	3	220	24	32.00	3,730,230
15.00	15.00									
67.44	36.44	31.00				8				2,792,363
38.44	8.44	30.00	80	60	7½	1	220	40	2.00	1,641,363
29.00	28.00	1.00	40-60		6	7	100	16½	35.00	1,151,000
13.00	13.00									400,000
4.50	4.50		40		6					200,000
3.00	3.00		80		10					200,000
5.50	5.50									
25.00	25.00					5				1,907,818
9.00	9.00		150		11					1,500,000
16.00	16.00		120		3	5				407,818
10.50	10.50		35		5					70,000
28.25	29.25	9.00				6				2,015,000
6.50	6.50		85		7					1,000,000
2.00	2.00		60		7					750,000
5.75	5.75		45		6	3	200	35		150,000
22.25	13.25	9.00	40		6	1	117	25		90,000
1.75	1.75		30		4	2	110	20		25,000
38.00	8.00	30.00	50		3½					340,000
658.00	658.00					280				14,340,634
317.00	317.00		40	26	4	150	90	15	1,207.00	4,695,204
25.00	25.00		40		4	11	90	15	90.00	807,269
42.00	42.00		40		4	26	87	15	203.00	975,481
274.00	274.00		50-60		5½	93	87-99	15	907.00	8,062,680
102.00	102.00				6	15			141.00	7,357,787
0.75	0.75				9	5	210	40	39.75	600,000

b Ship canal.

STATISTICS OF TRANSPORTATION.

TABLE 1.—CONSTRUCTION—NUMBER, DIMENSIONS, DATE OF CONSTRUCTION, AND COST OF STATE AND

B.—UNITED STATES GOVERNMENT CANALS.

	STATES.	Canals and canalized rivers.	Points connected.	When built.
1	Total			
2	Michigan			
3		St. Mary Falls (a) (b)	St. Mary river, around the falls	1853-1855
4		Lake Superior (a) (b)	Portage lake-Lake Superior	1868-1873
5		Keweenaw Bay and Portage Lake (a) (b)	Keweenaw bay-Portage lake	
6		St. Clair Flats (a)	St. Clair river-Lake St. Clair	1866-1869
7	Iowa	Des Moines Rapids (a)	Keokuk-Nashville	1868-1877
8	Alabama	Coosa (a)	Coosa river, around Ten Island shoals	1879-1888
9	Kentucky	Louisville and Portland (a)	Louisville-Portland	1828-1830
10	Tennessee			
11		{ Muscle Shoals (a)	Tennessee river, around Muscle shoals	1872-1889
		{ Elk River Shoals (a)	Tennessee river, around Elk river shoals	1889

C.—CANALIZED RIVERS.

1	Total			
2	Maine	Songo (c)	Sebago lake-Long Pond	
3	New York			
4		Black (e)	Carthage-Lyons Falls	1857-1861
5		Oneida (e)	Three River Point-Brewerton	1839-1850
6		Seneca (e)	Mud Lock-Baldwinsville	
7	Pennsylvania			
8		Monongahela	Pittsburg, Pa.-Morgantown, W. Va	1838-1868
9		Ohio (f)	Ohio river, at Davis island	1876-1885
10		Beaver (g)	Beaver-Economy	
11	Virginia	Upper Appomattox (f)	Stony Point-Petersburg	
12	West Virginia			
13		Great Kanawha (f)	Loup Creek shoals-Point Pleasant	1873-1880
14		Little Kanawha (g)	Burning Springs-Parkersburg	1870-1889
15	Ohio	Muskingum (f)	Zanesville-Marietta	1840
16	Illinois	Illinois	LaSalle-Grafton	1868-1889
17	Iowa	Mississippi (Des Moines Rapids) (f)	Nashville-Montrose	1868-1889
18	Wisconsin			
19		Fox (f)	Portage city-Green Bay	1830-1880
20		Chippewa (f)	Eau Claire-Mississippi river	1876-1889
21	Kentucky			
22		Kentucky (f)	Oregon-Ohio river	1845-1889
23		Green and Barren (f)	Lock No. 1, Green river-Lock No. 1, Barren river	1880-1889
24		Big Sandy (f)	Paintsville-Louisia	1883-1889
25	Tennessee	Cumberland (f)	Nashville-Point above Nashville	1887-1889
26	Alabama	Black Warrior (f)	Daniel creek-Tuscaloosa	1887-1889
27	Oregon	Columbia (f)	Columbia river, at the Cascades	1879-1889

a Ship canal.

b Purchased by or transferred to the United States government, since the Tenth Census.

c Operated by the state.

d Cost of construction not separable from that of the Black River canal.

e Eighty-five miles owned by a company, 17 miles by the United States government.

CANALS AND CANALIZED RIVERS.

477

PROPORTION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS—Continued.

B.—UNITED STATES GOVERNMENT CANALS.

LENGTH.			WIDTH.		Depth. (Feet.)	LOCKS.				Cost of construction and improvement.	
Total. (Miles.)	Canal. (Miles.)	Slackwater. (Miles.)	Surface. (Feet.)	Bottom. (Feet.)		Number.	Length. (Feet.)	Width. (Feet.)	Rise and fall. (Feet.)		
40.62	40.63					26				\$20,517,133	1
9.33	9.33					7				9,008,534	2
1.02	1.02				17	1	515	80		3,996,736	3
2.12	2.12				14	1	800	100		3,985,787	4
5.00	5.00				14	5				181,311	5
1.19	1.19				16					844,700	6
7.60	7.60				5	3	325	80		4,582,009	7
5.30	5.30				3	3	210	40		519,671	8
2.40	2.40				12	2	335	80		3,250,000	9
16.00	16.00					11				3,156,919	10
14.50	14.50				6	11	300	60		3,156,919	11
1.50	1.50				6						

C.—CANALIZED RIVERS.

1,078.04		1,078.04				80				17,186,922	1
7.00		7.00			10	1	96	24		20,000	2
70.20		70.20				4				368,164	3
42.50		42.50			4	2	142	30		(d)	4
20.00		20.00			4	2	120	30½		368,164	5
7.70		7.70			4						6
114.00		114.00				12				3,212,836	7
102.00		102.00			6	9	160	50		2,283,836	8
6.00		6.00			6	1	600	110		910,000	9
6.00		6.00				2	104	25		19,000	10
11.50		11.50			2½	5	60	90		388,617	11
98.00		98.00				12				2,444,339	12
58.00		58.00			7	5	270	50		2,046,775	13
40.00		40.00			5	5	127	26		397,564	14
75.00		75.00				10	160	36		2,033,724	15
227.00		227.00			7	3	350	75		1,727,297	16
4.40		4.40			5					(i)	17
169.40		169.40				28				3,219,701	18
160.40		160.40			4-6	27	160	35		3,063,653	19
9.00		9.00			4-5	1	270	40		156,048	20
286.50		286.50				11				2,070,670	21
98.00		98.00			5	5	140	38		1,163,077	22
175.00		175.00			3	5	145	38		674,294	23
13.50		13.50			5	1	160	52		242,299	24
14.40		14.40			4	1	280	52		69,563	25
0.04		0.04			6	1	322	52		188,105	26
0.60		0.60			8	1	462	90		1,434,846	27

f Operated by the United States government.

g Operated by a company.

h Eighty-eight miles owned by the state, 139 miles by the United States government.

i Cost of construction not separable from that of the Des Moines Rapids canal.

TABLE 2.—FLOATING EQUIPMENT—NUMBER, TONNAGE, AND VALUATION OF CANAL BOATS, WITH AVERAGES OF TONNAGE AND VALUATION.

STATES:	Canals.	TOW CANAL BOATS.					STEAM CANAL BOATS.				
		Num-ber.	Tonnage.	Average tonnage.	Valuation.	Average valuation.	Num-ber.	Tonnage.	Average tonnage.	Valuation.	Average valuation.
Total.....		6,376	964,509	151	\$5,300,914	\$831	133	14,676	106	\$453,000	\$3,283
New York.....		3,557	619,003	174	4,073,400	1,145	96	11,208	117	328,100	3,418
	Erie and branches.....	1,743	406,061	233	2,403,500	1,379	96	11,208	117	328,100	3,418
	Oswego.....										
	Cayuga and Seneca.....										
	Champlain.....										
	Black River.....										
	Delaware and Hudson.....	750	105,000	140	681,500	909					
New Jersey.....		314	24,120	77	92,275	294					
	Delaware and Raritan (a).....	314	24,120	77	92,275	294					
	Morris.....										
	Penn's Neck (a).....										
Pennsylvania.....		2,134	286,315	134	960,378	450	1	100	100	2,000	2,000
	Pennsylvania.....	318	89,040	280	166,314	523	1	100	100	2,000	2,000
	Delaware and Hudson (see New York)										
	Susquehanna and Tidewater.....	418	54,340	130	218,614	523					
	Schuylkill Navigation Company.....	125	22,000	176	66,250	530					
	Lehigh Coal and Navigation Company.....	1,273	120,935	95	509,200	400					
Delaware.....	Chesapeake and Delaware (a).....										
Maryland.....	Susquehanna and Tidewater (see Penn- sylvania).										
Virginia.....	Albemarle and Chesapeake (a).....										
	Dismal Swamp (a).....										
North Carolina.....	Fairfield (a).....										
	Newberne and Beaufort (a).....										
	Albemarle and Chesapeake (a).....										
Georgia.....		25	1,000	40	10,000	400					
	Augusta (a).....	25	1,000	40	10,000	400					
	Ogeechee.....										
Florida.....	Santa Fe (a).....										
Louisiana.....	New Basin (a).....										
	Old Basin (Carettelet) (a).....										
	Harvey's (a).....										
	Company's (a).....										
	Secolas (Tagliaferro) (a).....										
Texas.....	Galveston and Brazos (a).....										
Ohio.....		275	22,000	80	82,500	300	8	640	80	14,400	1,800
	Ohio and branches.....	275	22,000	80	82,500	300	8	640	80	14,400	1,800
	Walbonding.....										
	Hocking.....										
	Miami and Erie.....										
Illinois.....	Illinois and Michigan (a).....	71	12,071	170	82,361	1,160	33	2,728	83	108,500	3,288
Oregon.....	Willamette Transportation and Lock Company. (a).....										

c. Ship canal.

CANALS AND CANALIZED RIVERS.

479

TABLE 3.—TRAFFIC—TONS OF FREIGHT CARRIED ON STATE AND CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS.

SUMMARY.		TONS.
Total	.....	48,068,325
State and corporation canals	.....	13,260,600
United States government canals	.....	28,507,069
Canalized rivers	.....	6,891,656

A.—STATE AND CORPORATION CANALS.

STATES.	Canals and canalized rivers.	Freight traffic. (Tons.)	STATES.	Canals and canalized rivers.	Freight traffic. (Tons.)
Total	.....	13,260,600	North Carolina	.....	2,124
Arkansas	.....	6,816,304	Georgia	Fairfield (a)..... Newberne and Beaufort (a)..... Albemarle and Chesapeake (see Virginia) (a).....	2,124
California	Erie and branches..... Oswego..... Cayuga and Seneca..... Champlain..... Black River..... Delaware and Hudson.....	3,673,554 170,078 196,138 1,187,038 143,561 1,445,935	Florida	Augusta (a)..... Ogeechee.....	40,392 23,668 16,724
Connecticut	.....	1,738,905	Louisiana	Santa Fe (a).....	1,000
Delaware	Delaware and Raritan (a)..... Morris..... Penn's Neck (a).....	1,276,269 462,636 .....	.....	.....	293,070
Illinois	.....	1,359,665	.....	New Basin (a)..... Old Basin (Carondelet) (a)..... Harvey's (a)..... Company's (a)..... Secolas (Tagliaferro) (a).....	226,594 60,476
Indiana	Pennsylvania..... Delaware and Hudson (see New York)..... Susquehanna and Tidewater..... Schenck Navigation Company..... Lehigh Coal and Navigation Company..... Muncy.....	423,073 125,555 219,697 591,340	Texas	Galveston and Brazos (a).....	.....
Iowa	.....	.....	Ohio	.....	1,107,176
Kansas	Chesapeake and Delaware (a).....	736,879	.....	Ohio and branches..... Walbonding..... Hocking..... Miami and Erie.....	129,398 948 7,353 969,477
Michigan	Susquehanna and Tidewater (see Pennsylvania).....	.....	Illinois	Illinois and Michigan (a).....	742,391
Minnesota	.....	395,004	Oregon	Willamette Transportation and Lock Company (a).....	36,690
Mississippi	Albemarle and Chesapeake (a)..... Dismal Swamp (a).....	316,793 78,211	.....	.....	.....

B.—UNITED STATES GOVERNMENT CANALS.

Total	.....	28,507,069	Alabama	Coosa (a).....	.....
Arkansas	.....	27,491,869	Kentucky	Louisville and Portland (a).....	618,060
California	St. Mary Falls (a)..... Lake Superior (a)..... Keweenaw Bay and Portage Lake (a)..... St. Clair Flats (a).....	7,516,022 8,284 249,703 19,717,860	Tennessee	Muscle Shoals (a)..... Elk River Shoals (a).....	..... .....
Connecticut	Des Moines Rapids (a).....	397,140	.....	.....	.....

C.—CANALIZED RIVERS.

Total	.....	6,891,656	Ohio	Muskingum.....	10,281
Arkansas	Songo.....	.....	Illinois	Illinois.....	180,264
California	Black..... Oneida..... Seneca.....	..... ..... .....	Iowa	Mississippi (Des Moines Rapids).....	397,140
Connecticut	.....	3,294,932	Wisconsin	.....	671,962
Delaware	Monongahela..... Ohio..... Beaver.....	3,294,932	Kentucky	Fox..... Chippewa.....	346,475 325,477
Florida	Upper Appomattox.....	.....	.....	Kentucky..... Green and Barren..... Big Sandy.....	1,076,228 256,960 819,278
Georgia	.....	1,260,859	Tennessee	Cumberland.....	.....
Illinois	Great Kanawha..... Little Kanawha.....	1,145,202 115,657	Alabama	Black Warrior.....	.....
Indiana	.....	.....	Oregon	Columbia.....	.....

a Ship canal.

STATISTICS OF TRANSPORTATION.

TABLE 4.—INCOME AND EXPENDITURES—GROSS EARNINGS, EXPENSES, AND NET EARNINGS OF CANALS. (a)

STATES.	Canals.	Gross earnings.	Expenses.	Net earnings.	Net loss.
Total.....		\$4,089,132.26	\$2,122,376.00	\$1,966,756.26	
New York.....		916,684.63	1,037,824.33		\$120,939.50
	Erie and branches.....	} 857,297.86	786,257.86	71,040.00	
	Oswego.....				
	Cayuga and Seneca.....				
	Champlain.....				
	Black River.....				
	Delaware and Hudson.....	59,586.97	251,566.47		191,979.50
New Jersey.....		335,239.81	301,635.25	33,604.56	
	Delaware and Raritan (b).....				
	Morris.....	335,239.81	301,635.25	33,604.56	
	Penn's Neck (b).....				
Pennsylvania.....		2,430,829.04	476,169.34	1,954,659.70	
	Pennsylvania.....	172,342.19	228,808.99		56,466.80
	Delaware and Hudson (see New York).....				
	Susquehanna and Tidewater.....	18,189.30	88,897.55		70,708.25
	Schuylkill Navigation Company.....	102,010.38	43,309.18	58,701.20	
	Lehigh Coal and Navigation Company.....	2,138,287.17	115,153.62	2,023,133.55	
	Muncy.....				
Delaware.....		189,117.61	51,786.38	137,331.23	
	Chesapeake and Delaware (b).....	189,117.61	51,786.38	137,331.23	
Maryland.....	Susquehanna and Tidewater (see Pennsylvania).....				
Virginia.....	Albemarle and Chesapeake (b).....				
	Dismal Swamp (b).....				
North Carolina.....	Fairfield (b).....				
	Newberne and Beaufort (b).....				
	Albemarle and Chesapeake (see Virginia) (b).....				
Georgia.....		5,000.00	5,500.00		500.00
	Augusta (b).....				
	Ogeechee.....	5,000.00	5,500.00		500.00
Florida.....	Santa Fe (b).....				
Louisiana.....	New Basin (b).....				
	Old Basin (Carondelet) (b).....				
	Harvey's (b).....				
	Company's (b).....				
	Secolas (Tagliaferro) (b).....				
Texas.....	Galveston and Brazos (b).....				
Ohio.....		110,987.46	163,981.75		52,994.29
	Ohio and branches.....	28,005.47	88,518.30		60,512.83
	Walhonding.....	892.12	800.15	1.97	
	Hocking.....	2,613.15	6,219.11		3,605.96
	Miami and Erie.....	79,476.72	68,353.19	11,123.53	
Illinois.....		101,073.51	85,478.95	15,594.56	
	Illinois and Michigan (b).....	101,073.51	85,478.95	15,594.56	
Oregon.....	Willamette Transportation and Lock Company (b).....				

a The figures given are only for state and corporation canals, neither the United States government canals nor the canalized rivers reporting income or expenditure.

b Ship canal.

CANALS AND CANALIZED RIVERS.

481

5.—COMPARATIVE STATISTICS—MILEAGE OPERATED IN 1880 AND 1889 BY STATE AND CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS.

SUMMARY.

CANALS AND CANALIZED RIVERS.		Miles operated in 1889 (including slack-water).	Miles operated in 1880 (including slack-water).	Increase.	Decrease.
Total		3,383.27	3,235.78	147.49	
and corporation canals		2,264.60	2,746.18		481.58
States government canals		40.63	10.00	30.63	
and rivers		1,078.04	479.60	598.44	

A.—STATE AND CORPORATION CANALS.

STATES.	Canals.	Miles operated in 1889 (including slack-water).	Miles operated in 1880 (including slack-water).	Increase.	Decrease.	STATES.	Canals.	Miles operated in 1889 (including slack-water).	Miles operated in 1880 (including slack-water).	Increase.	Decrease.
Total		2,264.60	2,746.18		481.58	North Carolina		13.00	13.00		
Ark.		640.00	702.84		56.18		Fairfield (a)	4.50	4.50		
	Erie and branches	381.30	395.07		13.68		Newberne and Beaufort. (a)	3.00	3.00		
	Oswego	38.00	38.00				Albemarle and Chesapeake. (a)	5.50	5.50		
	Cayuga and Seneca	24.77	24.77			Georgia		25.00	25.00		
	Champlain	81.00	81.00				Augusta (a)	9.00	9.00		
	Black River	35.50	78.00		42.50		Ogeechee	16.00	16.00		
	Delaware and Hudson	86.00	86.00			Florida		10.50	10.50		
N. Jersey		171.02	171.02				Santa Fe (a)	10.50	10.50		
	Delaware and Raritan (a)	66.00	66.00			Louisiana		38.25	28.00	10.25	
	Morris	103.00	103.00				New Basin (a)	6.50	6.50		
	Penn's Neck (a)	2.02	2.02				Old Basin (Carondelet) (a)	2.00	2.00		
Pennsylvania		464.98	689.02		224.04		Harvey's (a)	5.75	5.75		
	Pennsylvania	193.00	333.00		140.00		Company's (a)	22.25	12.00	10.25	
	Delaware and Hudson	25.00	25.00				Secolas (Tagliaferro) (a)	1.75	1.75		
	Susquehanna and Tidewater.	30.00	30.00			Texas		38.00	38.00		
	Union		84.64		84.64		Galveston and Brazos (a)	38.00	38.00		
	Schuylkill Navigation Company.	108.23	108.23			Ohio		658.00	674.25		16.25
	Lehigh Coal and Navigation Company.	108.00	108.00				Ohio and branches	317.00	323.00		6.00
	Muncy	0.75	0.75				Walbonding	25.00	25.00		
re	Chesapeake and Delaware. (a)	14.00	14.00				Hocking	42.00	42.00		
nd		15.00	199.50		184.50		Miami and Erie	274.00	284.25		10.25
	Chesapeake and Ohio	(b)	184.50		184.50	Illinois		102.00	102.00		
	Susquehanna and Tidewater.	15.00	15.00				Willamette Transportation and Lock Company. (a)	0.75	0.75		
a		67.44	74.56		7.12	Oregon					
	Albemarle and Chesapeake. (a)	38.44	38.44			Michigan			3.14		3.14
	Dismal Swamp (a)	29.00	29.00				St. Mary Falls (a)		1.02		1.02
	Alexandria and Georgetown.		7.12		7.12		Lake Superior (a)		2.12		2.12

B.—UNITED STATES GOVERNMENT CANALS.

Total		40.63	10.00	30.63		Iowa	Des Moines Rapids (a)	7.60	7.60		
an		9.33		9.33		Alabama	Coosa (a)	5.30		5.30	
	St. Mary Falls (a)	1.02		1.02		Kentucky	Louisville and Portland. (a)	2.40	2.40		
	Lake Superior (a)	2.12		2.12		Tennessee		16.00		16.00	
	Keweenaw Bay and Portage Lake. (a)	5.00		5.00			Muscle Shoals (a)	14.50		14.50	
	St. Clair Flats (a)	1.19		1.19			Elk River Shoals (a)	1.50		1.50	

a Ship canal.

b Rendered useless in 1889 by the floods of June of that year.

STATISTICS OF TRANSPORTATION.

TABLE 5.—COMPARATIVE STATISTICS—MILEAGE OPERATED IN 1880 AND 1889 BY STATE AND CORPORATION CANALS, UNITED STATES GOVERNMENT CANALS, AND CANALIZED RIVERS—Continued.

C.—CANALIZED RIVERS.

STATES.	Canalized rivers.	Miles operated in 1889 (including slack-water.)	Miles operated in 1880 (including slack-water.)	Increase.	Decrease.	STATES.	Canalized rivers.	Miles operated in 1889 (including slack-water.)	Miles operated in 1880 (including slack-water.)	Increase.	Decrease.
Total		1,078.04	479.60	598.44		Ohio	Muskingum	75.00	75.00		
Maine	Songo	7.00	7.00			Illinois	Illinois	227.00		227.00	
New York		70.20	27.70	42.50		Iowa	Mississippi (Des Moines rapids)	4.40		4.40	
	Black	42.50		42.50		Wisconsin		169.40	169.40		
	Oneida	20.00	20.00				Fox	160.40	160.40		
	Seneca	7.70	7.70				Chippewa	9.00	9.00		
Pennsylvania		114.00	91.00	23.00		Kentucky		286.50		286.50	
	Monongahela	102.00	85.00	17.00			Kentucky	98.00		98.00	
	Ohio (Davis island)	6.00		6.00			Green and Barren	175.00		175.00	
	Beaver	6.00	6.00				Big Sandy	13.50		13.50	
Virginia	Upper Appomattox	11.50	11.50			Tennessee	Cumberland	14.40		14.40	
West Virginia		98.00	98.00			Alabama	Black Warrior	0.04		0.04	
	Great Kanawha	58.00	58.00			Oregon	Columbia (at Cascades) ..	0.60		0.60	
	Little Kanawha	40.00	40.00								

TABLE 6.—COMPARATIVE STATISTICS—LENGTH AND COST OF ABANDONED CANALS UP TO 1880 AND FROM 1880 TO 1889.

STATES.	Canals.	Length. (Miles.)	Cost of construction.
Total up to 1880		2,215.25	\$51,171,016
Total up to 1880		1,953.56	44,013,168
Total 1880 to 1889		261.69	7,157,850
New York	Erie and branches (part)	13.68	
Pennsylvania		224.64	5,907,850
	Pennsylvania (part)	140.00	
	Union	84.64	5,907,850
Virginia	Alexandria and Georgetown	7.12	1,250,000
Ohio		16.25	
	Ohio and branches (part)	6.00	
	Miami and Erie (part)	10.25	

CANALS AND CANALIZED RIVERS.

483

TABLE 7.—COMPARATIVE STATISTICS—FREIGHT TRAFFIC IN 1880 AND 1889.

SUMMARY.

CANALS AND CANALIZED RIVERS—	MILES (INCLUDING SLACKWATER).				FREIGHT TRAFFIC (TONS).			
	1889	1880	Increase.	Decrease.	1889	1880	Increase.	Decrease.
Total.....	3,383.27	3,235.78	147.49	.....	48,668,325	21,044,292	27,624,033	.....
Reporting freight traffic in 1880 and 1889.....	2,356.83	2,552.26	.....	195.43	16,537,123	18,978,971	.....	2,441,848
Reporting freight traffic in 1880 or 1889.....	805.15	570.82	234.33	.....	32,131,202	2,065,321	30,065,881	.....
Not reporting in either 1880 or 1889.....	221.29	112.70	108.59	.....	.....	.....	.....	.....

A.—CANALS AND CANALIZED RIVERS REPORTING FREIGHT TRAFFIC IN 1880 AND 1889.

STATES.	Canals and canalized rivers.	MILES (INCLUDING SLACKWATER).				FREIGHT TRAFFIC (TONS).			
		1889	1880	Increase.	Decrease.	1889	1880	Increase.	Decrease.
Total.....		2,356.83	2,552.26	.....	195.43	16,537,123	18,978,971	.....	2,441,848
New York.....	State and corporation canals.....	646.66	702.84	.....	56.18	6,816,304	7,766,960	.....	950,665
	Erie and branches.....	381.39	395.07	.....	13.68	3,673,554	4,608,651	.....	935,097
	Oswego.....	38.00	38.00	.....	.....	170,078	427,803	.....	257,785
	Cayuga and Seneca.....	24.77	24.77	.....	.....	196,138	125,331	70,807	.....
	Champlain.....	81.00	81.00	.....	.....	1,187,038	1,200,503	.....	13,465
	Black River.....	35.50	78.00	.....	42.50	143,561	75,308	68,253	.....
	Delaware and Hudson.....	86.00	86.00	.....	.....	1,445,935	1,329,313	116,622	.....
New Jersey.....	State and corporation canals.....	169.00	169.00	.....	.....	1,738,905	1,851,568	.....	112,663
	Delaware and Raritan (a).....	66.00	66.00	.....	.....	1,276,260	1,348,082	.....	71,813
	Morris.....	103.00	103.00	.....	.....	462,636	503,486	.....	40,850
Pennsylvania.....	.....	566.23	689.23	.....	123.00	4,654,597	6,024,247	.....	1,369,650
	State and corporation canals.....	464.23	604.23	.....	140.00	1,359,065	2,573,847	.....	1,214,182
	Pennsylvania.....	193.00	333.00	.....	140.00	423,073	861,798	.....	438,725
	Susquehanna and Tidewater.....	30.00	30.00	.....	.....	125,555	362,295	.....	236,740
	Schuylkill Navigation Company.....	108.23	108.23	.....	.....	219,697	630,416	.....	410,719
	Lehigh Coal and Navigation Company.....	108.00	108.00	.....	.....	591,340	719,338	.....	127,998
	Delaware and Hudson (see New York).....	25.00	25.00	.....	.....	.....	.....	.....	.....
	Canalized rivers:								
	Monongahela.....	102.00	85.00	17.00	.....	3,294,932	3,450,400	.....	155,468
Delaware.....	State and corporation canals:								
	Chesapeake and Delaware (a).....	14.00	14.00	.....	.....	736,879	959,146	.....	222,267
Maryland.....	State and corporation canals:								
	Susquehanna and Tidewater (see Pennsylvania).....	15.00	15.00	.....	.....	.....	.....	.....	.....
Virginia.....	State and corporation canals.....	67.44	67.44	.....	.....	595,004	406,731	.....	11,727
	Albemarle and Chesapeake (a).....	38.44	38.44	.....	.....	316,793	400,000	.....	83,207
	Dismal Swamp (a).....	29.00	29.00	.....	.....	78,211	6,731	71,480	.....
North Carolina.....	State and corporation canals.....	10.00	10.00	.....	.....	2,124	40,000	.....	37,876
	Albemarle and Chesapeake (see Virginia) (a).....	5.50	5.50	.....	.....	.....	.....	.....	.....
	Fairfield (a).....	4.50	4.50	.....	.....	2,124	40,000	.....	37,876
Georgia.....	State and corporation canals.....	25.00	25.00	.....	.....	40,392	23,602	16,790	.....
	Augusta (a).....	9.00	9.00	.....	.....	23,668	2,697	20,971	.....
	Ogeechee.....	16.00	16.00	.....	.....	16,724	20,905	.....	4,181
Louisiana.....	State and corporation canals.....	8.50	8.50	.....	.....	293,076	318,096	.....	25,026
	New Basin (a).....	6.50	6.50	.....	.....	226,594	177,108	49,486	.....
	Old Basin (Carondelet) (a).....	2.00	2.00	.....	.....	66,476	140,988	.....	74,512
Ohio.....	.....	733.00	749.25	.....	16.25	1,117,457	837,252	280,205	.....
	State and corporation canals.....	658.00	674.25	.....	16.25	1,107,176	791,062	315,214	.....
	Ohio and branches.....	317.00	323.00	.....	6.00	129,398	429,626	.....	300,228
	Walhonding.....	25.00	25.00	.....	.....	948	3,309	.....	2,361
	Hocking.....	42.00	42.00	.....	.....	7,353	35,290	.....	27,937
	Miami and Erie.....	274.00	284.25	.....	10.25	969,477	323,737	645,740	.....
	Canalized rivers:								
	Muskingum.....	75.00	75.00	.....	.....	10,281	45,290	.....	35,009
Illinois.....	State and corporation canals:								
	Illinois and Michigan (a).....	102.00	102.00	.....	.....	742,391	751,360	.....	8,969

a Ship canal.

STATISTICS OF TRANSPORTATION.

TABLE 7.—COMPARATIVE STATISTICS—FREIGHT TRAFFIC IN 1880 AND 1889—Continued.

B.—CANALS AND CANALIZED RIVERS REPORTING FREIGHT TRAFFIC IN 1880 OR 1889.

STATES.	Canals and canalized rivers.	MILES (INCLUDING SLACKWATER).				FREIGHT TRAFFIC (TONS).			
		1889	1880	Increase.	Decrease.	1889	1880	Increase.	Decrease.
Total		805.15	570.82	234.33		32,131,202	2,065,321	30,065,881	
New Jersey	State and corporation canals: Peun's Neck (a)	2.02	2.02				6,060		6,000
Pennsylvania	State and corporation canals	0.75	85.39		84.64		33,688		32,688
	Union		84.64		84.64		29,853		29,853
	Muncy	0.75	0.75				3,835		3,835
Maryland	State and corporation canals: Chesapeake and Ohio	(b)	184.50		184.50		655,423		655,423
Virginia	State and corporation canals: Alexandria and Georgetown		7.12		7.12		125,931		125,931
West Virginia	Canalized rivers	98.00	98.00			1,260,859		1,260,859	
	Great Kanawha	58.00	58.00			1,145,202		1,145,202	
	Little Kanawha	40.00	40.00			115,657		115,657	
Kentucky		275.40	2.40	273.00		1,694,288		1,694,288	
	United States government canals: Louisville and Portland (a)	2.40	2.40			618,060		618,060	
	Canalized rivers	273.00		273.00		1,076,228		1,076,228	
	Kentucky	98.00		98.00		256,950		256,950	
	Green and Barren	175.00		175.00		819,278		819,278	
Iowa		12.00	7.60	4.40		794,280		794,280	
	United States government canals: Des Moines Rapids (a)	7.60	7.60			397,140		397,140	
	Canalized rivers: Mississippi (Des Moines rapids)	4.40		4.40		397,140		397,140	
Michigan		9.33	3.14	6.19		27,491,869	1,244,279	26,247,590	
	State and corporation canals		3.14		3.14		1,244,279		1,244,279
	St. Mary Falls (a)		1.02		1.02		1,244,279		1,244,279
	Lake Superior (a)		2.12		2.12				
	United States government canals	9.33		9.33		27,491,869		27,491,869	
	St. Mary Falls (a)	1.02		1.02		7,516,022		7,516,022	
	Lake Superior (a)	2.12		2.12		8,284		8,284	
	Keweenaw Bay and Portage Lake (a)	5.00		5.00		249,703		249,703	
	St. Clair Flats (a)	1.19		1.19		19,717,860		19,717,860	
Illinois	Canalized rivers: Illinois	227.00		227.00		180,264		180,264	
Wisconsin	Canalized rivers	169.40	169.40			671,952		671,952	
	Fox	160.40	160.40			346,475		346,475	
	Chippewa	9.00	9.00			325,477		325,477	
Florida	State and corporation canals: Santa Fe (a)	10.50	10.50			1,000		1,000	
Oregon	State and corporation canals: Willamette Transportation and Lock Company (a)	0.75	0.75			36,690		36,690	

a Ship canal.

b Rendered useless in 1889 by the floods of June of that year.

CANALS AND CANALIZED RIVERS.

485

TABLE 7.—COMPARATIVE STATISTICS—FREIGHT TRAFFIC IN 1880 AND 1889—Continued.

C.—CANALS AND CANALIZED RIVERS NOT REPORTING FREIGHT TRAFFIC IN EITHER 1880 OR 1889.

STATES.	Canals and canalized rivers.	MILES (INCLUDING SLACKWATER).				FREIGHT TRAFFIC (TONS).			
		1889	1880	Increase.	Decrease.	1889	1880	Increase.	Decrease.
Total		221.29	112.70	108.59					
	Canalized rivers:								
	Songo	7.00	7.00						
ork	Canalized rivers	70.20	27.70	42.50					
	Black	42.50		42.50					
	Oncida	20.00	20.00						
	Seneca	7.70	7.70						
lvanian	Canalized rivers	12.00	6.00	6.00					
	Ohio (Davis Island)	6.00		6.00					
	Beaver	6.00	6.00						
ia	Canalized rivers:								
	Upper Appomattox	11.50	11.50						
Carolina	State and corporation canals:								
	Newberne and Beaufort (a)	3.00	3.00						
na	State and corporation canals:	29.75	19.50	10.25					
	Harvey's (a)	5.75	5.75						
	Company's (a)	22.25	12.00	10.25					
	Secolas (Tagliaferro) (a)	1.75	1.75						
	State and corporation canals:								
	Galveston and Brazos (a)	38.00	38.00						
na		5.34		5.34					
	United States government canals:								
	Coosa (a)	5.30		5.30					
	Canalized rivers:								
	Black Warrior	0.04		0.04					
ore		30.40		30.40					
	United States government canals	16.00		16.00					
	Muscle Shoals (a)	14.50		14.50					
	Elk River Shoals (a)	1.50		1.50					
	Canalized rivers:								
	Cumberland	14.40		14.40					
ky	Canalized rivers:								
	Big Sandy	13.50		13.50					
	Canalized rivers:								
	Columbia	0.60		0.60					

a Ship canal.

STATISTICS OF TRANSPORTATION.

TABLE 8.—COMPARATIVE STATISTICS—INCOME

SUMMARY.

	CANALS—	MILES (INCLUDING SLACKWATER).			
		1889	1890	Increase.	Decrease.
1	Total	2,305.23	2,756.18		450.95
2	Reporting income and expenditures in 1880 and 1889	1,902.39	2,072.32		169.93
3	Reporting income and expenditures in 1880 or 1889	339.58	648.09		308.51
4	Not reporting income and expenditures in either 1880 or 1889	63.26	35.77	27.49	

A.—CANALS REPORTING INCOME AND EXPENDITURES IN 1880 AND 1889.

	STATES.	Canals.	MILES (INCLUDING SLACKWATER).			
			1889	1890	Increase.	Decrease.
1	Total		1,902.39	2,072.32		169.93
2	New York		530.16	543.84		13.68
3		{ Erie and branches	381.39	395.07		13.68
4		{ Oswego	38.00	38.00		
5		{ Cayuga and Seneca	24.77	24.77		
6		{ Delaware and Hudson	86.00	86.00		
7	New Jersey	Morris	103.00	103.00		
8	Pennsylvania		464.23	604.23		140.00
9		Pennsylvania	193.00	333.00		140.00
10		Susquehanna and Tidewater	30.00	30.00		
11		Schenck Navigation Company	108.23	108.23		
12		Lehigh Coal and Navigation Company	108.00	108.00		
13		Delaware and Hudson	25.00	25.00		
14	Delaware	Chesapeake and Delaware (a)	14.00	14.00		
15	Maryland	Susquehanna and Tidewater	15.00	15.00		
16	Georgia	Ogeechee	16.00	16.00		
17	Ohio		638.00	674.25		16.25
18		{ Ohio and branches	317.00	323.00		6.00
19		{ Walhonding	25.00	25.00		
20		{ Hocking	42.00	42.00		
21		{ Miami and Erie	274.00	284.25		10.25
22	Illinois	Illinois and Michigan (a)	102.00	102.00		

B.—CANALS REPORTING INCOME AND EXPENDITURES IN 1880 OR 1889.

1	Total		339.58	648.09		308.51
2	New York		116.50	159.00		42.50
3		Champlain	81.00	81.00		
4		Black River	35.50	78.00		42.50
5	New Jersey	Delaware and Raritan (a)	66.00	66.00		
6	Pennsylvania		0.75	85.39		84.64
7		Union		84.64		84.64
8		Muncy	0.75	0.75		
9	Maryland	Chesapeake and Ohio	(b)	184.50		184.50
10	Virginia		67.44	74.56		7.12
11		Albemarle and Chesapeake (a)	38.44	38.44		
12		Dismal Swamp (a)	29.00	29.00		
13		Alexandria and Georgetown		7.12		7.12
14	North Carolina		10.00	10.00		
15		Fairfield (a)	4.50	4.50		
16		Albemarle and Chesapeake (see Virginia) (a)	5.50	5.50		
17	Georgia	Augusta (a)	9.00	9.00		
18	Louisiana		28.75	18.50	10.25	
19		New Basin (a)	6.50	6.50		
20		Company's (a)	22.25	12.00	10.25	
21	Texas	Galveston and Brazos (a)	38.00	38.00		
22	Michigan		3.14	3.14		
23		St. Mary Falls (a)	1.02	1.02		
24		Lake Superior (a)	2.12	2.12		

a Ship canal.

CANALS AND CANALIZED RIVERS.

487

AND EXPENDITURES IN 1880 AND 1889.

SUMMARY.

1889				1880			
Gross earnings.	Expenses.	Net earnings.	Net loss.	Gross earnings.	Expenses.	Net earnings.	Net loss.
\$4,089,132.26	\$2,122,376.00	\$1,966,756.26		\$4,302,185.00	\$2,875,335.00	\$1,426,850.00	
4,089,132.26	2,122,376.00	1,966,756.26		3,202,148.00	1,977,636.00	1,224,512.00	
				1,100,037.00	897,699.00	202,338.00	

A.—CANALS REPORTING INCOME AND EXPENDITURES IN 1880 AND 1889.

1889				1880			
Gross earnings.	Expenses.	Net earnings.	Net loss.	Gross earnings.	Expenses.	Net earnings.	Net loss.
\$4,089,132.26	\$2,122,376.00	\$1,966,756.26		\$3,202,148.00	\$1,977,636.00	\$1,224,512.00	
916,884.83	1,037,824.33		\$120,939.50	1,176,111.00	912,061.00	264,050.00	
837,297.86	786,257.86	71,040.00		1,136,611.00	727,789.00	408,822.00	
59,586.97	251,566.47		191,979.50	39,500.00	184,272.00		\$144,772.00
335,239.81	301,635.25	33,604.56		215,677.00	160,418.00	55,259.00	
2,430,829.04	476,169.34	1,954,659.70		1,298,017.00	505,924.00	792,093.00	
172,342.19	228,808.99		56,466.80	368,770.00	177,826.00	190,944.00	
18,189.30	88,897.55		70,708.25	55,260.00	35,979.00	19,281.00	
102,010.38	43,309.18	58,701.20		573,133.00	169,952.00	403,181.00	
2,138,287.17	115,153.62	2,023,133.55		300,854.00	122,167.00	178,687.00	
189,117.61	51,786.38	137,331.23		201,783.00	62,245.00	139,538.00	
5,000.00	5,500.00		500.00	7,300.00	6,980.00	320.00	
110,987.46	163,981.75		52,994.29	195,655.00	204,407.00		8,752.00
110,987.46	163,981.75		52,994.29	195,655.00	204,407.00		8,752.00
101,073.51	85,478.95	15,594.56		107,005.00	125,601.00		17,936.00

B.—CANALS REPORTING INCOME AND EXPENDITURES IN 1880 OR 1889.

	1,100,037	897,699	202,338	
	63,067	187,913		124,846
	51,267	136,520		85,253
	11,800	51,393		39,593
	419,431	331,344	88,087	
	27,072	22,515	4,557	
	26,987	22,496	4,501	
	75	19	56	
	372,616	227,277	145,339	
	104,048	71,632	32,416	
	86,138	56,432	29,706	
	13,524	6,000	7,524	
	4,386	9,200		4,814
	8,000	3,000	5,000	
	8,000	3,000	5,000	
	20,909	7,362	13,527	
	27,840	13,650	14,190	
	20,340	13,650	6,690	
	7,500		7,500	
	4,535	3,454	1,081	
	52,519	29,532	22,987	
	44,743	23,437	21,306	
	7,776	6,095	1,681	

b Rendered useless in 1889 by the floods of June of that year.

STATISTICS OF TRANSPORTATION.

TABLE 8.—COMPARATIVE STATISTICS—INCOME AND EXPENDITURES IN 1880 AND 1889—Continued.

C.—CANALS NOT REPORTING INCOME AND EXPENDITURES IN EITHER 1880 OR 1889.

STATES.	Canals.	MILES (INCLUDING SLACKWATER).			
		1889	1880	Increase.	Decrease.
Total		63.26	35.77	27.49	
New Jersey	Penn's Neck (a)	2.02	2.02		
North Carolina	Newberne and Beaufort (a)	3.00	3.00		
Florida	Santa Fe (a)	10.50	10.50		
Louisiana		9.50	9.50		
	Old Basin (Carondelet) (a)	2.00	2.00		
	Harvey's (a)	5.75	5.75		
	Secolas (Tagliaferro) (a)	1.75	1.75		
Oregon	Willamette Transportation and Lock Company (a)	0.75	0.75		
Michigan		6.19		6.19	
	Keweenaw Bay and Portage Lake (a)	5.00		5.00	
	St. Clair Flats (a)	1.19		1.19	
Iowa	Des Moines Rapids (a)	7.60	7.60		
Alabama	Coosa (a)	5.30		5.30	
Kentucky	Louisville and Portland (a)	2.40	2.40		
Tennessee		16.00		16.00	
	Muscle Shoals (a)	14.50		14.50	
	Elk River Shoals (a)	1.50		1.50	

a Ship canal.

TRANSPORTATION BY EXPRESS COMPANIES.

TRANSPORTATION BY EXPRESS COMPANIES.

BY THOMAS J. VIVIAN.

The present is the first census report made upon the business of the express companies of the country. It was the intent to include the express business in the Tenth Census, but the law was found inadequate in the circumstances, as explained in volume IV, of the report of the census of 1880.

The report for 1890 is the result of more recent legislation and the hearty co-operation of the express companies.

EXISTING AND MERGED COMPANIES.

The express companies from which reports were sought were those which shipped freight over some railroad, stage, or water line of the United States, in charge of their agents or messengers, and whose business was not confined to one town. From those express companies which were in existence during the years 1880 to 1889, inclusive, material was gathered for a table showing the mileage operated by them during that period.

In the following parallel columns there are given the lists of those companies which were in operation during the year ending June 30, 1890, and those companies which, during the decade 1880-1889, inclusive, were either discontinued or absorbed into other similar carrying organizations, the facts relative to their discontinuance being given in Table 1:

THE EIGHTEEN EXPRESS COMPANIES OPERATING IN THE UNITED STATES DURING THE YEAR ENDING JUNE 30, 1890.	THE THIRTEEN EXPRESS COMPANIES WHICH LAPSED DURING THE DECADE 1880-1889, INCLUSIVE.
Adams Express Company. American Express Company. Camden and Atlantic Express Company. Canadian Express Company. Cincinnati, Georgetown and Portsmouth Express Company. Denver and Rio Grande Express. Dominion Express Company. Earle & Prew's Express. Long Island Express Company. National Express Company. New England Despatch Express Company. New York and Boston Despatch Express Company. Northern Pacific Express Company. Pacific Express Company. Southern Express Company. United States Express Company. Wells, Fargo & Co.'s Express. West Jersey Express Company.	Baltimore and Ohio Express Company. Delaware, Lackawanna and Western Express Company. Erie and New England Express Company. Erie Express Company. Louisville, New Albany and Chicago Express Company. Ohio and Mississippi Express Company. Philadelphia and Reading Express Company. Pittsburg and Western Express Company. St. Louis, Iron Mountain and Southern Express Company. Texas Express Company. Union Express Company. United States and Canada Express Company. Westcott's Express Company.

Two foreign companies, the Canadian and Dominion, operate over mileage in the United States. The Dominion Express Company courteously furnished all the information asked for, but the Canadian Express Company furnished only a statement of the mileage operated in the United States during the years 1880-1889, inclusive.

As will be seen by their titles, many of the discontinued companies were operated by the railroads whose names they bear, the attempt to combine the express business with their original occupation as common carriers having been made at one time or another by most of the large railroad organizations, while the other companies have lost their corporate identity through the processes of consolidation. These processes of consolidation have been almost as active among express companies as among railroads. Some of the surviving concerns represent the consolidation of dozens of earlier companies.

PLAN OF THE TABLES.

For the presentation of the statistical results of the investigation by the Eleventh Census into the express industry, the following 6 tables have been prepared :

Table 1.—Mileage operated by express companies during the years 1880-1890, inclusive.

Table 2.—Mileage operated by express companies on June 30, 1890, given by routes.

Table 3.—Equipment and fixtures of express companies on June 30, 1890.

Table 4.—Employés of express companies on June 30, 1890.

Table 5.—Expenditures of express companies for the year ending June 30, 1890.

Table 6.—Business done by the express companies during the year ending June 30, 1890.

The data in all of these tables are presented in 3 parts, as follows :

Part 1.—By companies in each group.

Part 2.—By company totals.

Part 3.—By group totals.

In addition to these segregations all 3 parts of the first 2 tables are subdivided as follows :

A.—Mileage operated over railways.

B.—Mileage operated over water lines.

C.—Mileage operated over stage lines.

D.—Mileage operated over all lines.

GROUPINGS.

The groups are the same as those to which the assignment of railroad data has been made, the express companies having segregated their business done over the various railroad, water, and stage lines which are operated within these groups.

These groups, with the express companies which operate within them, are as follows:

Group I consists of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.

American Express Company.

Canadian Express Company.

Dominion Express Company.

Earle & Prew's Express.

National Express Company.

New England Despatch Express Company.

New York and Boston Despatch Express Company.

United States and Canada Express Company. (a)

United States Express Company.

Group II consists of New Jersey, Delaware, Maryland, District of Columbia, and so much of New York, Pennsylvania, and West Virginia as lies east and north of a line from Buffalo, N. Y., to Salamanca, N. Y.; thence following the county lines to Pittsburg, Pa.; thence following the Ohio river to Parkersburg, W. Va.; thence across West Virginia to the south end of the west boundary of Maryland. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.

American Express Company.

Baltimore and Ohio Express Company. (a)

Camden and Atlantic Express Company.

Delaware, Lackawanna and Western Express Company. (a)

Erie Express Company. (a)

Erie and New England Express Company. (a)

Long Island Express Company.

National Express Company.

Philadelphia and Reading Express Company. (a)

Union Express Company. (a)

United States Express Company.

United States and Canada Express Company. (a)

Wells, Fargo & Co.'s Express.

Westcott's Express Company. (a)

West Jersey Express Company.

a Not in operation in the year ending June 30, 1890.

Group III consists of Ohio and Indiana, the southern peninsula of Michigan, and so much of Pennsylvania New York as lies west of a line from Pittsburg, Pa., to Buffalo, N. Y., via Salamanca N. Y. The express companies operating in this group at some time during the years 1880-1890 were:

Adams Express Company.
American Express Company.
Baltimore and Ohio Express Company. (a)
Canadian Express Company.
Cincinnati, Georgetown and Portsmouth Express Company.
Erie Express Company. (a)
Louisville, New Albany and Chicago Express Company. (a)
Ohio and Mississippi Express Company. (a)
Pacific Express Company.
Pittsburg and Western Express Company. (a)
Union Express Company. (a)
United States Express Company.
Wells, Fargo & Co.'s Express.

Group IV consists of Virginia, West Virginia (exclusive of that portion in Group II), North Carolina, and South Carolina. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.
Baltimore and Ohio Express Company. (a)
Southern Express Company.
United States Express Company.

Group V consists of Kentucky, Tennessee, Mississippi, Alabama, Georgia, and Florida. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.
Baltimore and Ohio Express Company. (a)
Pacific Express Company.
Southern Express Company.
United States Express Company.

Group VI consists of Illinois, Wisconsin, northern peninsula of Michigan, Minnesota, Iowa, North Dakota, South Dakota east of the Missouri river, and Missouri north of the Missouri river. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.
American Express Company.
Baltimore and Ohio Express Company. (a)
Northern Pacific Express Company.
Ohio and Mississippi Express Company. (a)
Pacific Express Company.
Southern Express Company.
United States Express Company.
Wells, Fargo & Co.'s Express.

Group VII consists of Montana, Wyoming, Nebraska, that portion of North Dakota and South Dakota west of the Missouri river, and that portion of Colorado north of the latitude of Denver. The express companies operating in this group during the years 1880-1890 were:

American Express Company.
Northern Pacific Express Company.
Pacific Express Company.
United States Express Company. (a)
Wells, Fargo & Co.'s Express.

Group VIII consists of that part of Missouri south of the Missouri river, Arkansas, Kansas, Indian Territory, Oklahoma, that part of Colorado south of the latitude of Denver, that portion of New Mexico north of Santa Fe, and that portion of Texas north of a line from Santa Fe to the southwest corner of Indian territory. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company.
American Express Company. (a)
Denver and Rio Grande Express.
Pacific Express Company.
St. Louis, Iron Mountain and Southern Express Company. (a)
Southern Express Company.
Texas Express Company. (a)
United States Express Company.
Wells, Fargo & Co.'s Express.

a Not in operation in the year ending June 30, 1890.

Group IX consists of Louisiana, Texas (except that portion allotted to Group VIII), and that portion of the territory of New Mexico lying south of a line from Santa Fe eastward to the southwest corner of Indian territory and east of a line from Santa Fe to El Paso. The express companies operating in this group during the years 1880-1890 were:

Baltimore and Ohio Express Company. (a)
 Pacific Express Company.
 Southern Express Company.
 Texas Express Company. (a)
 United States Express Company.
 Wells, Fargo & Co.'s Express.

Group X consists of California, Oregon, Nevada, Washington, Idaho, Arizona, Utah, and that portion of New Mexico lying west of a line from Santa Fe to El Paso and south of a line from Santa Fe to the northwestern corner of the territory. The express companies operating in this group during the years 1880-1890 were:

Adams Express Company. (a)
 Denver and Rio Grande Express.
 Northern Pacific Express Company.
 Pacific Express Company.
 Wells, Fargo & Co.'s Express.

WHAT THE TABLES SHOW.

Tables 1 and 2 deal with the question of mileage operated by express companies, that is, the number of miles of railroads, water lines, and stage lines over which express companies transport goods. Table 1, "Mileage operated by express companies during the years 1880-1890, inclusive", presents these figures for the 11 years 1880 to 1890, inclusive, and gives details for each of the express companies, the figures in gross being set forth in the following summary:

TABLE A.—SUMMARY SHOWING THE MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILROADS, WATER LINES, AND STAGE LINES FROM 1880 TO 1890, INCLUSIVE. (a)

YEARS.	Total.	Over railroads.	Over water lines.	Over stage lines.
1880.....	102,816.75	90,649.75	7,036.00	5,131.00
1881.....	115,236.28	102,614.28	7,096.00	5,526.00
1882.....	126,393.01	114,129.01	7,366.00	4,898.00
1883.....	141,146.88	128,688.38	8,393.50	4,065.00
1884.....	141,473.19	128,801.69	8,376.50	4,295.00
1885.....	145,179.64	131,557.14	8,538.50	5,084.00
1886.....	152,259.33	139,202.83	8,689.50	4,367.00
1887.....	163,760.66	151,271.16	8,724.50	3,765.00
1888.....	167,628.00	154,406.50	9,014.50	4,207.00
1889.....	169,857.16	157,897.66	8,207.50	3,752.00
1890.....	174,534.51	160,597.51	10,882.00	3,055.00

a The railroad mileage prior to 1890 and the water lines include an undetermined amount of Canadian mileage. The railroad mileage for 1890 includes 475.18 miles of lines in Canada.

The salient facts of this summary are the steady increase of railroad mileage from year to year, the fluctuations of mileage operated over water lines, and the decrease of that operated over stage lines. In 1880, as will be seen, the mileage operated by express companies over railroads was 90,649.75, while in 1890 it was 160,597.51, including Canadian mileage, an increase of 69,947.76 miles for 10 years. The mileage operated over water lines also shows an increase, but it is by no means as large, the increase for 10 years being 3,846 miles, or 54.66 per cent. In the year of greatest increase the mileage of water lines used by express companies was 10,882 for 1890 against 8,207.50 for 1889, an increase of 2,674.50. This increase was largely through the operation, for the first time by the American Express Company in 1890, of steamship companies plying between Boston and Nova Scotia and of others plying between Detroit, Grand Haven, and Milwaukee; through the operation by the United States Express Company of the Choptank Steamboat Company and a line from Salem to Philadelphia, and an increased operation on the Ohio river by the Adams Express Company.

a Not in operation in the year ending June 30, 1890.

VARIATIONS OF MILEAGE.

The variations in the account of operated mileage during the 11 years, as given by groups, are quite pronounced and are due to a variety of causes. In the first place it must be understood that the mileage is that operated by express companies and does not stand as the mileage of the various transportation lines. Fluctuations therefore are those of mileage operated by express companies over certain lines and not of the mileage of the transportation lines themselves, and while the routes operated by the express companies as a rule are well defined, changes are being constantly made in the contracts, not only with the transportation lines but also among express companies themselves. In the next place, it will be observed that while there are fluctuations in the mileage operated in the various groups, the total mileage operated over railways by express companies has gradually increased from 1880 to 1890, inclusive. The only group in which this steadiness of increase has been maintained is Group V, while the other 2 groups in which this increase has been most nearly maintained are Groups VIII and IX. The fact that but 8 groups are represented in that part of the summary dealing with the express mileage operated over water lines is not due to the absence of waterways, but simply to the fact that certain companies have found it expedient or necessary to employ other transportation lines than waterways. The drop in 1890, Group V, is due to the abandonment by the Adams Express Company of its river line between Evansville, Paducah, and Cairo. The small mileage drop in Groups VII and VIII was that of ferries not used in 1890, while the drop in the 1889 mileage of Group X is due to the Pacific Express Company's abandonment of 1,135 miles of the Oregon Railway and Navigation Company's water route.

Another point to be mentioned is the extremely large mileage operated over stage lines in Group X as compared with that operated over similar lines in other groups. No better indication is needed than that furnished by these figures of the great extent of country in this group which is still unfurnished with close railroad communication. Even in this group, however, the mileage operated over stage lines is diminishing, and the mileage so operated in 1890 is but little more than half of that operated in 1880.

In Table 2, "Mileage operated by express companies on June 30, 1890, given by routes", the mileage of the census year is analyzed to the extent of the railroad and water lines over which the express companies operated in each group. The railroads quoted are the controlling or operating lines only. The 475.18 miles of Canadian mileage reported in Groups I and III were operated by certain express companies on their international routes for which it was impossible to effect any segregation of returns.

DUPLICATION OF MILEAGE.

One thing remains to be spoken of in connection with the mileage account, that is, the column of duplications or duplicated mileage, which appears in Table 2. These duplications are due to two causes: (1) arrangements by which one express company operating a certain line of railroad agrees to allow some other express company to ship through bills of lading over that line, reserving to itself, however, the exclusive right of local business; (2) contracts between express companies to have the common use of certain portions of railroad lines on a pro rata basis. The duplicated mileage amounted altogether to 5,924.31 miles, so that although the mileage operated on June 30, 1890, by all the express companies over all railroads amounted to 160,597.51 miles, the net railroad mileage operated by these companies amounted only to 154,673.20 miles. The gross, duplicated, and net mileages by groups are shown in the following table:

TABLE B.—SUMMARY SHOWING THE MILEAGE OPERATED OVER RAILROADS BY EXPRESS COMPANIES ON JUNE 30, 1890, THE DUPLICATED MILEAGE, AND THE NET MILEAGE.

GROUPS.	Gross mileage operated by express companies over railroads.	Duplication in the express mileage.	Net mileage operated by express companies.
Total	a160,597.51	5,924.31	154,673.20
I.....	68,815.23	1,953.90	6,861.33
II.....	18,068.78	646.91	17,421.87
III.....	c21,762.50	1,258.05	20,504.45
IV.....	8,525.50	51.57	8,473.93
V.....	16,524.48	1,060.84	15,463.64
VI.....	37,848.42	745.36	37,103.06
VII.....	8,785.28		8,785.28
VIII.....	20,154.54	133.68	20,000.86
IX.....	9,088.96	54.06	9,034.90
X.....	11,023.82		11,023.82

a Includes 475.18 miles of line in Canada.

b Includes 174.88 miles of line in Canada.

c Includes 300.30 miles of line in Canada..

STATISTICS OF TRANSPORTATION.

EQUIPMENT AND FIXTURES.

The following summary, which is compiled from the figures of Table 3, presents a statement of the equipment and fixtures of each company making report, together with the value placed by the company on these fixtures:

TABLE C.—SUMMARY SHOWING EQUIPMENT AND FIXTURES OF EXPRESS COMPANIES IN THE UNITED STATES ON JUNE 30, 1890.

ITEMS.	Number.	Value.
Total value of equipment and fixtures.....		\$5,074,045.12
Cars	35	86,416.39
Office safes.....	7,670	582,525.03
Messengers' safes	6,910	125,816.70
Messengers' trunks	5,890	62,624.15
Horses.....	8,291	1,404,476.30
Wagons.....	6,008	1,192,286.44
Sleighs	1,439	65,505.91
Office fixtures.....		1,146,469.72
Stable equipment (including harness)		347,834.48

The significant fact suggested by these figures is that the express business is one which depends upon organization and continuous activity rather than upon an expensive plant.

EMPLOYÉS.

A summary of the information contained in Table 4, "Employés of express companies on June 30, 1890", is as follows:

TABLE D.—SUMMARY SHOWING THE NUMBER OF EMPLOYÉS OF ALL GRADES IN THE SERVICE OF EXPRESS COMPANIES IN THE UNITED STATES ON JUNE 30, 1890.

Total number of employés.....	45,718
General officers	86
Superintendents and route agents	320
General office clerks	1,377
Agents	21,065
Assistants to agents	7,952
Messengers	4,130
Baggage men employed as messengers.....	1,405
Drivers of wagons.....	4,877
All others	4,506

The express business is partly carried on by the employés of the railway companies. Thus the number of baggage men employed as messengers is 1,405 as against 4,130 messengers employed wholly by the express companies. The 21,065 agents returned are entirely within the employ of the companies, as are the superintendents, route agents, office clerks, and drivers.

EXPENDITURES.

The figures given in Table 5, "Expenditures of express companies for the year ending June 30, 1890", include only partial entries for the 4 following railroad express companies: Camden and Atlantic; Cincinnati, Georgetown and Portsmouth; Long Island, and West Jersey, these companies being departments of the railroad corporations owning them and whose names they bear, and having no separately kept expense account. The summarized figures of Table 5 are as follows:

TABLE E.—SUMMARY SHOWING THE EXPENDITURES OF EXPRESS COMPANIES IN THE UNITED STATES FOR THE YEAR ENDING JUNE 30, 1890.

Operating expenses:	
Paid to railways.....	\$19,327,280.49
Paid to water lines	173,222.13
Paid to stage lines.....	60,679.38
Paid for salaries and wages	16,176,097.55
Paid for local expenses and repairs.....	3,560,045.83
Paid for general expenses	826,715.50
Paid for other expenses of operation	2,289,663.82
	<u>\$42,413,704.70</u>
Other payments:	
Taxes	171,370.31
Dividends (8 companies reporting)	3,198,048.31
	<u>3,369,418.62</u>
Total expenditures	<u>45,783,123.32</u>

STATISTICS OF TRANSPORTATION.

OWNERSHIP AND ORGANIZATION.

It appears that the express business does not date any further back than 1839, while its earliest date as to an organized undertaking is 1850. This year, it further appears, began the period of greatest activity in express organization, the American Express Company being formed into a joint stock company March, 1850, followed by a similar organization on the part of the United States Express Company April 22, 1854, and by the Adams Express Company July 1, 1854. The record of ownership and organization of the express companies whose statistics appear in this report will be found in the following summary:

TABLE H.—STATEMENT OF THE OWNERSHIP AND ORGANIZATION OF EXPRESS COMPANIES OPERATING IN THE UNITED STATES JUNE 30, 1890.

COMPANIES.	Joint stock company or corporation.	Date of organization or charter.	Empowering state.	Number of stockholders or shareholders.	Location of principal office.
Adams Express Company	Joint stock company..	July 1, 1854	New York	2,672	New York, N. Y.
American Express Company.....	do	Mar. 18, 1850	do	3,766	Do.
Camden and Atlantic Express Company (a)					
Cincinnati, Georgetown and Portsmouth Express Company. (b)					
Denver and Rio Grande Express (c).....					
Dominion Express Company	Corporation.....	1873	Canada	20	Montreal, Canada.
Earle & Prew's Express.....	Joint stock company ..	Mar. 1, 1868	Rhode Island.....	2	Providence, R. I.
Long Island Express Company (d).....					
National Express Company	Joint stock company ..	May 1, 1853	New York	70	New York, N. Y.
New England Despatch Express Company ..	Corporation.....	Aug. 1, 1885	Massachusetts ..	10	Boston, Mass.
New York and Boston Despatch Express Company.	do	June 16, 1873	do	1	Do.
Northern Pacific Express Company	do	Aug. 16, 1883	Minnesota	7	St. Paul, Minn.
Pacific Express Company.....	do	Nov. 1, 1879	Nebraska.....	11	Omaha, Neb.
Southern Express Company	do	Dec. 21, 1886	Georgia.....	17	Augusta, Ga.
United States Express Company	Joint stock company ..	Apr. 22, 1854	New York	(e)	New York, N. Y.
Wells, Fargo & Co.'s Express	Corporation.....	Feb. 5, 1866	Colorado.....	1,886	San Francisco, Cal.; New York, N. Y.
West Jersey Express Company (f).....					

a Department of the Camden and Atlantic railroad.

b Department of the Cincinnati, Georgetown and Portsmouth railroad.

c Department of the Denver and Rio Grande railroad.

d Department of the Long Island railroad.

e Not reported.

f Department of the West Jersey railroad.

STATISTICS OF TRANSPORTATION.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP II—Continued.

B.—MILEAGE OPERATED OVER WATER LINES.

COMPANIES.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over water lines in Group II.	668.00	668.00	668.00	673.00	696.00	717.00	793.00	958.00	983.00	958.00	1,206.00
Adams Express Company	193.00	193.00	193.00	193.00	193.00	193.00	260.00	369.00	394.00	394.00	399.00
American Express Company	244.00	244.00	244.00	244.00	249.00	272.00	293.00	293.00	293.00	293.00	298.00
National Express Company	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00
United States Express Company								65.00	65.00	65.00	290.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group II.					3.00	3.00	26.00	41.00	29.00	17.00	3.00
American Express Company					3.00	3.00	3.00	17.00	20.00	17.00	3.00
National Express Company							23.00	24.00	9.00		

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group II.	14,159.23	14,721.77	16,041.55	18,167.37	17,097.09	17,624.34	20,105.20	20,652.59	18,969.48	19,661.96	19,279.73
Adams Express Company	4,312.80	4,427.70	4,713.87	5,174.35	5,466.33	5,797.21	6,020.77	7,316.47	7,608.17	7,467.29	6,481.00
American Express Company	2,952.19	3,110.88	3,331.59	4,457.44	3,823.72	3,880.62	3,531.36	4,170.20	4,240.72	4,218.86	4,450.00
Baltimore and Ohio Express Company	859.67	897.15	939.25	956.25	973.75	984.15	1,101.75	1,129.35	(a)		
Camden and Atlantic Express Company	67.79	73.50	73.50	66.76	66.76	79.27	79.27	79.27	79.93	81.17	78.11
Delaware, Lackawanna and Western Express Company	818.42	925.52	1,065.92	1,021.87	1,021.87	1,021.50	1,057.75	(b)			
Erie Express Company							1,385.29	1,399.83	(c)		
Erie and New England Express Company			206.27	206.27	(d)						
Long Island Express Company				354.12	354.12	355.81	356.50	360.38	356.81	360.94	352.79
National Express Company	1,115.18	1,115.18	1,134.56	1,920.66	1,862.83	1,890.28	1,944.72	1,665.80	1,709.62	1,787.61	1,186.00
Philadelphia and Reading Express Company	1,094.00	1,118.00	1,118.00	1,167.00	1,263.00	1,383.00	1,383.00	1,383.00	(e)		
Union Express Company	536.50	629.50	684.55	697.12	(f)						
United States Express Company	1,781.76	1,786.62	2,093.72	1,933.53	2,041.35	2,028.65	3,022.39	2,915.77	3,413.35	4,206.38	4,529.00
United States and Canada Express Company	118.00	118.00	118.00	(g)							
Wells, Fargo & Co.'s Express									1,297.90	1,294.15	1,548.00
Westcott's Express Company	320.01	333.72	352.67	(h)							
West Jersey Express Company	182.91	185.91	209.65	212.00	223.36	223.85	222.31	233.02	242.98	245.56	245.06

a Sold to United States Express Company in 1887.

b Sold to United States Express Company in 1886.

c Business transferred to Wells, Fargo & Co.'s Express in 1887.

d Business transferred to Wells, Fargo & Co.'s Express in 1883.

e Service turned over to United States Express Company in 1887.

f Good will transferred to Adams Express Company in 1883.

g No operations in this group after 1883.

h Known as the Long Island Express Company after 1882.

GROUP III.

A.—MILEAGE OPERATED OVER RAILWAYS.

Total mileage operated over railways in Group III.	15,133.20	17,107.30	18,533.56	23,982.35	21,158.21	20,619.10	22,274.15	23,718.20	21,378.13	21,811.17	21,762.59
Adams Express Company	2,509.44	3,271.76	3,569.65	5,052.05	4,531.40	4,576.16	5,319.27	5,526.56	5,429.74	5,631.53	5,388.00
American Express Company	5,772.77	5,871.42	5,981.38	8,743.10	8,602.17	8,623.56	8,771.46	8,645.96	8,850.99	9,085.00	9,272.73
Baltimore and Ohio Express Company	568.54	568.54	568.54	568.54	568.54	1,167.68	1,167.68	1,167.68	1,167.68		
Canadian Express Company	59.37	59.37	59.37	59.37	59.37	59.37	59.37	59.37	59.37	59.37	(b)
Cincinnati, Georgetown and Portsmouth Express Company	20.40	34.80	34.80	34.80	34.80	42.00	42.00	42.00	42.00	42.00	42.00
Erie Express Company							1,240.46	1,242.05	(c)		
Louisville, New Albany and Chicago Express Company	289.40	289.40	377.39	(d)							
Ohio and Mississippi Express Company	245.44	245.44	245.44	245.44	245.49	(e)					
Pacific Express Company	353.60	746.90	692.30	685.60	703.37	518.47	569.70	599.50	599.50	599.50	471.00
Pittsburg and Western Express Company				208.87	288.17	288.17	340.37	340.37	371.47	(f)	
Union Express Company	1,417.27	1,540.67	2,065.60	2,468.81	(g)						
United States Express Company	3,896.97	4,479.00	4,919.09	5,915.68	5,095.00	5,343.69	4,763.84	5,648.76	4,904.01	4,917.04	5,129.73
Wells, Fargo & Co.'s Express									1,112.05	1,496.13	1,681.00

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group III	843.00	843.00	823.00	823.00	823.00	823.00	823.00	801.00	801.00	884.00	1,004.00
Adams Express Company	608.00	608.00	608.00	608.00	608.00	608.00	608.00	598.00	598.00	608.00	704.00
American Express Company	235.00	235.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	215.00	300.00

a Sold to United States Express Company in 1887.

b No information furnished for 1890.

c Business transferred to Wells, Fargo & Co.'s Express in 1887.

d Express turned over to American Express Company in 1882.

e Operated by Adams Express Company since 1884.

f Operated by Wells, Fargo & Co.'s Express since 1888.

g Good will transferred to Adams Express Company in 1883.

STATISTICS OF TRANSPORTATION.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP V—Continued.

C.—MILEAGE OPERATED OVER STAGE LINES.

COMPANIES	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over stage lines in Group V.	110.00	88.00	101.00	101.00	84.00	74.00	74.00	105.00	105.00	115.00	122.00
Adams Express Company	110.00	88.00	101.00	101.00	84.00	74.00	74.00	105.00	105.00	115.00	122.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group V.	7,912.73	8,920.49	9,695.83	10,844.16	11,815.77	12,688.12	12,988.16	14,553.58	15,426.21	16,415.36	16,646.48
Adams Express Company	1,027.46	1,608.00	1,583.01	1,730.34	1,716.68	1,706.68	1,706.68	1,415.62	1,502.52	1,730.52	1,639.90
Baltimore and Ohio Express Company								1,053.14	(a)		
Pacific Express Company								513.45	513.45	640.58	667.90
Southern Express Company	6,885.27	7,312.49	8,112.82	9,113.82	10,099.09	10,981.44	11,281.48	11,571.37	11,798.11	12,614.67	12,986.00
United States Express Company								1,612.13		1,429.59	1,431.59

a Sold to United States Express Company in 1887.

GROUP VI.

A.—MILEAGE OPERATED OVER RAILWAYS.

Total mileage operated over railways in Group VI.	23,920.62	25,902.99	28,326.34	29,736.29	31,429.61	30,732.45	32,769.53	34,135.77	39,610.65	37,726.56	37,848.42
Adams Express Company	926.90	1,011.06	1,081.56	1,194.06	1,194.06	1,197.76	1,192.69	1,494.26	5,174.21	5,201.25	5,103.00
American Express Company	13,713.24	14,729.41	16,128.80	17,208.51	18,601.12	17,828.81	18,587.69	19,266.96	19,898.36	21,113.15	20,540.06
Baltimore and Ohio Express Company						370.76		446.52	(a)		
Northern Pacific Express Company	586.00	618.00	618.00	783.60	1,044.54	1,095.17	1,174.91	1,314.75	1,441.41	1,435.67	2,368.14
Ohio and Mississippi Express Company	370.76	370.76	370.76	370.76	370.76	(b)					
Pacific Express Company	2,131.30	2,686.10	2,906.00	3,269.80	3,307.20	2,444.45	3,226.01	2,354.94	1,996.33	1,951.43	1,951.00
Southern Express Company							152.00	152.00	152.00	152.00	152.00
United States Express Company	6,192.42	6,487.66	7,221.22	6,878.14	6,880.51	7,764.08	8,034.05	9,074.92	10,303.02	7,227.74	6,906.35
Wells, Fargo & Co.'s Express				31.42	31.42	31.42	31.42	31.42	645.32	645.32	728.00

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group VI.							20.00	20.00			
American Express Company							20.00	20.00			

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group VI.			5.00	5.00	11.00	11.00	36.00	26.00	47.00	32.00	35.00
Adams Express Company											4.00
American Express Company			5.00	5.00	11.00	11.00	36.00	26.00	47.00	32.00	31.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group VI.	23,920.62	25,902.99	28,331.34	29,741.29	31,440.61	30,743.45	32,825.53	34,181.77	39,657.65	37,758.56	37,883.42
Adams Express Company	926.90	1,011.06	1,081.56	1,194.06	1,194.06	1,197.76	1,192.69	1,494.26	5,174.21	5,201.25	5,107.00
American Express Company	13,713.24	14,729.41	16,133.80	17,213.51	18,612.12	17,839.81	18,643.69	19,312.06	19,945.36	21,145.15	20,571.06
Baltimore and Ohio Express Company						370.76		446.52	(a)		
Northern Pacific Express Company	586.00	618.00	618.00	783.60	1,044.54	1,095.17	1,174.91	1,314.75	1,441.41	1,435.67	2,368.14
Ohio and Mississippi Express Company	370.76	370.76	370.76	370.76	370.76	(b)					
Pacific Express Company	2,131.30	2,686.10	2,906.00	3,269.80	3,307.20	2,444.45	3,226.01	2,354.94	1,996.33	1,951.43	1,951.00
Southern Express Company							152.00	152.00	152.00	152.00	152.00
United States Express Company	6,192.42	6,487.66	7,221.22	6,878.14	6,880.51	7,764.08	8,034.05	9,074.92	10,303.02	7,227.74	6,906.35
Wells, Fargo & Co.'s Express				31.42	31.42	31.42	31.42	31.42	645.32	645.32	728.00

a Sold to United States Express Company in 1887.

b Operated by Adams Express Company since 1884.

GROUP VII.

A.—MILEAGE OPERATED OVER RAILWAYS.

Total mileage operated over railways in Group VII.	2,265.70	2,449.42	4,035.32	3,559.17	4,467.67	4,806.06	5,550.80	6,985.86	7,346.94	7,878.25	8,785.99
American Express Company (a)	606.01	770.50	959.02					549.25	549.25	742.05	752.22
Northern Pacific Express Company			221.00	564.60	752.30	752.30	752.30	752.30	785.90	785.90	1,233.00
Pacific Express Company	1,316.00	1,323.70	1,351.40	1,350.60	1,666.40	1,701.84	1,758.80	1,572.83	1,592.07	1,680.51	2,306.00
United States Express Company	343.69	355.22	355.22	(b)							
Wells, Fargo & Co.'s Express			1,148.68	1,643.97	2,048.97	2,351.92	3,039.70	4,111.48	4,419.12	4,669.59	4,486.71

a Operations for 1880-1882 over the Chicago, Burlington and Quincy and Fremont, Elkhorn and Missouri Valley railroads; operations for 1887-1890 over the Great Northern and Montana Central railroads.

b No operations in this group after 1882.

STATISTICS OF TRANSPORTATION.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP IX.

A.—MILEAGE OPERATED OVER RAILWAYS.

COMPANIES.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over railways in Group IX.	2,707.24	4,002.93	5,657.29	6,660.05	6,651.54	7,729.58	7,887.69	8,828.15	8,759.51	8,945.71	9,088.98
Baltimore and Ohio Express Company								189.00	(a)		
Pacific Express Company	93.00	271.00	722.50	975.50	902.50	1,749.00	3,917.50	4,473.50	4,176.50	4,283.50	4,582.98
Southern Express Company	72.70	72.70	142.00	170.40	170.40	170.40	189.00	(b)			1,028.00
Texas Express Company	2,541.54	3,659.23	4,792.79	4,040.38	4,040.38	3,605.81	1,423.64	1,818.49	933.60	933.60	(c)
United States Express Company									194.25	218.25	254.00
Wells, Fargo & Co.'s Express				1,573.77	1,538.26	2,204.37	2,357.55	2,347.16	3,455.16	3,510.38	3,342.00

D.—MILEAGE OPERATED OVER ALL LINES. (d)

Total express mileage in Group IX.	2,707.24	4,002.93	5,657.29	6,660.05	6,651.54	7,729.58	7,887.69	8,828.15	8,759.51	8,945.71	9,088.98
Baltimore and Ohio Express Company								189.00	(e)		
Pacific Express Company	93.00	271.00	722.50	975.50	902.50	1,749.00	3,917.50	4,473.50	4,176.50	4,283.50	4,582.98
Southern Express Company	72.70	72.70	142.00	170.40	170.40	170.40	189.00	(b)			1,028.00
Texas Express Company	2,541.54	3,659.23	4,792.79	4,040.38	4,040.38	3,605.81	1,423.64	1,818.49	933.60	933.60	(c)
United States Express Company									194.25	218.25	254.00
Wells, Fargo & Co.'s Express				1,573.77	1,538.26	2,204.37	2,357.55	2,347.16	3,455.16	3,510.38	3,342.00

a Operations over Vicksburg, Shreveport and Pacific railroad in 1887 only; sold to United States Express Company in 1887.

b Operations over Vicksburg, Shreveport and Pacific railroad suspended after 1886.

c Business transferred to Southern Express Company in 1890.

d No mileage over water and stage lines in this group.

e Sold to United States Express Company in 1887.

GROUP X.

A.—MILEAGE OPERATED OVER RAILWAYS.

Total mileage operated over railways in Group X.	4,909.81	5,828.50	6,529.00	8,915.16	9,817.77	10,494.61	10,649.83	10,929.14	10,608.03	11,170.75	11,023.82
Adams Express Company		286.00	286.00	(a)							
Denver and Rio Grande Express				369.00	369.00	369.00	369.00	409.00	409.00	409.00	413.50
Northern Pacific Express Company				534.00	643.00	802.00	716.00	1,786.40	1,109.30	1,247.04	1,102.00
Pacific Express Company	306.10	687.90	865.70	1,218.52	1,432.34	1,831.35	1,797.67	2,146.59	2,158.30	2,392.96	2,639.34
Wells, Fargo & Co.'s Express	4,603.71	4,854.60	5,377.90	6,793.64	7,373.43	7,492.26	7,767.16	6,587.15	6,931.43	7,121.75	7,466.98

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group X.	2,180.00	2,180.00	2,180.00	3,354.00	3,354.00	3,430.00	3,485.00	3,451.00	3,485.00	2,350.00	3,602.00
Northern Pacific Express Company				1,174.00	1,174.00	1,250.00	1,305.00	100.00	100.00	100.00	161.00
Pacific Express Company								1,296.00	1,330.00	195.00	195.00
Wells, Fargo & Co.'s Express	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,055.00	2,055.00	2,055.00	3,246.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group X.	4,919.00	5,267.00	4,623.00	3,864.00	4,117.00	4,647.00	4,004.00	3,563.00	3,996.00	3,459.00	2,744.00
Adams Express Company	6.00	56.00	56.00	(a)							
Northern Pacific Express Company											20.00
Wells, Fargo & Co.'s Express	4,913.00	5,211.00	4,567.00	3,864.00	4,117.00	4,647.00	4,004.00	3,563.00	3,996.00	3,459.00	2,724.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group X.	12,008.81	13,275.50	13,332.60	16,133.16	17,288.77	18,571.61	18,138.83	17,943.14	18,089.03	16,979.75	17,369.82
Adams Express Company	6.00	342.00	342.00	(a)							
Denver and Rio Grande Express				369.00	369.00	369.00	369.00	409.00	409.00	409.00	413.50
Northern Pacific Express Company				1,708.00	1,817.00	2,052.00	2,021.00	1,886.40	1,209.30	1,347.04	1,283.00
Pacific Express Company	306.10	687.90	865.70	1,218.52	1,432.34	1,831.35	1,797.67	3,442.59	3,488.30	2,587.96	2,234.34
Wells, Fargo & Co.'s Express	11,696.71	12,245.60	12,124.90	12,837.64	13,670.43	14,319.26	13,951.16	12,205.15	12,982.43	12,635.75	13,438.98

a No operations in this group after 1882.

EXPRESS COMPANIES.

505

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 2.—BY COMPANY TOTALS.

A.—MILEAGE OPERATED OVER RAILWAYS.

COMPANIES.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over rail-ways.	90,649.75	102,614.23	114,129.01	128,688.38	128,801.69	131,557.14	139,202.83	151,271.16	154,406.50	157,897.66	160,597.51
Adams Express Company.....	14,351.57	16,803.07	17,985.91	18,119.48	18,201.47	18,570.23	19,709.68	20,784.75	24,401.73	24,817.90	23,300.50
American Express Company.....	24,903.09	26,355.08	28,573.17	33,681.61	34,655.51	33,873.78	34,384.64	36,175.87	36,796.70	38,510.75	40,133.00
Baltimore and Ohio Express Company.....	1,555.49	1,592.97	1,635.07	1,688.29	2,675.69	2,686.09	2,803.69	4,852.02	(a)		
Camden and Atlantic Express Company.....	67.79	73.50	73.50	66.76	66.76	79.27	79.27	79.27	79.93	81.17	78.93
Canadian Express Company.....	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	(b)
Cincinnati, Georgetown and Portsmouth Express Company.....	20.40	34.80	34.80	34.80	34.80	42.00	42.00	42.00	42.00	42.00	42.00
Delaware, Lackawanna and Western Express Company.....	818.42	925.52	1,065.92	1,021.87	1,021.87	1,021.50	1,057.75	(c)			
Denver and Rio Grande Express.....	474.00	786.00	1,165.00	1,928.00	1,868.00	1,686.00	1,686.00	1,756.00	1,872.00	1,902.00	2,100.50
Dominion Express Company.....					20.00	20.00	20.00	20.00	252.00	252.00	252.00
Earle & Prew's Express.....	201.00	201.00	201.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	146.00
Erie Express Company.....							2,625.75	2,641.38	(d)		
Erie and New England Express Company.....			206.27	206.27	(e)						
Long Island Express Company.....			354.12	354.12	354.12	355.81	356.59	360.38	356.81	360.94	352.79
Louisville, New Albany and Chicago Express Company.....	289.40	289.40	377.39	(f)							
National Express Company.....	1,150.69	1,150.69	1,217.79	2,003.89	2,089.06	2,116.50	2,147.94	1,868.02	1,926.84	2,013.83	1,385.00
New England Despatch Express Com-pany.....	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	887.00
New York and Boston Despatch Express Company.....	251.00	251.00	379.00	379.00	351.00	374.00	374.00	374.00	374.00	374.00	399.23
Northern Pacific Express Company.....	586.00	618.00	839.00	1,882.20	2,439.84	2,649.47	2,643.21	3,853.45	3,336.61	3,468.61	4,719.00
Ohio and Mississippi Express Company.....	616.20	616.20	616.20	616.20	616.25	(g)					
Pacific Express Company.....	7,172.09	9,734.70	11,225.00	12,375.05	13,152.86	13,488.18	17,041.51	18,763.30	18,697.66	19,849.48	21,127.00
Philadelphia and Reading Express Com-pany.....	1,094.00	1,118.00	1,118.00	1,167.00	1,263.00	1,383.00	1,383.00	1,383.00	(h)		
Pittsburg and Western Express Company.....				208.87	288.17	288.17	340.37	340.37	371.47	(i)	
St. Louis, Iron Mountain and Southern Express Company.....	685.00	719.00	(j)								
Southern Express Company.....	11,330.30	11,977.02	13,088.35	14,723.29	15,899.76	17,253.19	17,123.69	17,229.10	17,791.62	18,992.42	21,714.00
Texas Express Company.....	2,541.54	3,659.23	4,792.79	4,470.42	4,470.42	4,035.85	1,853.68	2,248.53	1,463.96	1,515.36	(k)
Union Express Company.....	1,953.77	2,170.17	2,770.15	3,165.93	(l)						
United States Express Company.....	12,214.84	13,108.50	14,589.25	14,727.35	14,016.86	15,136.42	15,820.28	19,336.43	22,538.34	20,492.13	20,587.50
United States and Canada Express Com-pany.....	1,861.72	1,861.72	1,861.27	1,744.32	(m)						
Wells, Fargo & Co.'s Express.....	4,603.71	6,644.27	8,347.05	12,261.85	13,438.08	14,624.02	15,837.66	17,280.46	22,444.04	23,329.70	23,128.00
Westcott's Express Company.....	320.01	333.72	352.67	(n)							
West Jersey Express Company.....	182.91	185.91	209.65	212.00	223.36	223.85	222.31	233.02	242.98	245.56	245.06

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines.	7,036.00	7,096.00	7,366.00	8,393.50	8,376.50	8,538.50	8,689.50	8,724.50	9,014.50	8,207.50	10,882.00
Adams Express Company.....	1,104.00	1,104.00	1,104.00	1,076.00	1,076.00	1,111.00	1,187.00	1,385.00	1,410.00	1,493.00	1,437.00
American Express Company.....	1,663.00	1,723.00	1,993.00	1,874.50	1,857.50	1,908.50	1,928.50	1,734.50	1,714.50	1,959.50	2,863.00
Earle & Prew's Express.....	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00
National Express Company.....	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00
New England Despatch Express Com-pany.....	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00
New York and Boston Despatch Express Company.....	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00
Northern Pacific Express Company.....				1,174.00	1,174.00	1,250.00	1,305.00	100.00	100.00	100.00	161.00
Pacific Express Company.....								1,296.00	1,330.00	195.00	195.00
United States Express Company.....								65.00	316.00	316.00	891.00
Wells, Fargo & Co.'s Express.....	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,055.00	2,055.00	2,055.00	3,246.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines.	5,131.00	5,526.00	4,898.00	4,065.00	4,295.00	5,084.00	4,367.00	3,765.00	4,207.00	3,752.00	3,055.00
Adams Express Company.....	189.00	261.00	270.00	135.00	128.00	118.00	90.00	124.00	124.00	193.00	181.00
American Express Company.....	29.00	54.00	61.00	66.00	50.00	25.00	50.00	54.00	78.00	100.00	130.00
National Express Company.....							23.00	24.00	9.00		
Northern Pacific Express Company.....											20.00
Wells, Fargo & Co.'s Express.....	4,913.00	5,211.00	4,567.00	3,864.00	4,117.00	4,941.00	4,204.00	3,563.00	3,996.00	3,459.00	2,724.00

a Sold to United States Express Company in 1887.

b No information furnished for 1890.

c Sold to United States Express Company in 1886.

d Business transferred to Wells, Fargo & Co.'s Express in 1887.

e Business transferred to Wells, Fargo & Co.'s Express in 1883.

f Express turned over to American Express Company in 1882.

g Operated by Adams Express Company since 1884.

h Service turned over to United States Express Company in 1887.

i Operated by Wells, Fargo & Co.'s Express since 1888.

j Consolidated with Pacific Express Company in 1882.

k Business transferred to Southern Express Company in 1890.

l Good will transferred to Adams Express Company in 1883.

m Business divided between Adams and American Express Companies in 1884.

n Known as the Long Island Express Company after 1882.

STATISTICS OF TRANSPORTATION.

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 2.—BY COMPANY TOTALS—Continued.

D.—MILEAGE OPERATED OVER ALL LINES

COMPANIES.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total express mileage operated over all lines.	102,816.75	115,236.28	126,393.01	141,146.88	141,473.19	145,179.64	152,250.33	163,760.66	167,628.00	169,657.16	174,534.51
Adams Express Company.....	15,644.57	18,168.07	19,359.91	19,330.48	19,409.47	19,799.23	20,986.68	22,293.75	25,935.73	26,503.90	24,918.50
American Express Company.....	26,595.09	28,132.08	30,627.17	35,622.11	36,563.01	35,807.28	36,363.14	37,964.37	38,589.20	40,570.25	43,126.00
Baltimore and Ohio Express Company.....	1,555.49	1,592.97	1,635.07	1,688.29	2,675.69	2,686.09	2,803.69	4,852.02	(a)		
Camden and Atlantic Express Company.....	67.70	73.50	73.50	66.76	66.76	79.27	79.27	79.27	79.93	81.17	78.98
Canadian Express Company.....	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	(b)
Cincinnati, Georgetown and Portsmouth Express Company.....	20.40	34.80	34.80	34.80	34.80	42.00	42.00	42.00	42.00	42.00	42.00
Delaware, Lackawanna and Western Express Company.....	818.42	925.52	1,065.92	1,021.87	1,021.87	1,021.50	1,057.75	(c)			
Denver and Rio Grande Express.....	474.00	786.00	1,165.00	1,928.00	1,869.00	1,686.00	1,686.00	1,756.00	1,872.00	1,902.00	2,100.30
Dominion Express Company.....					20.00	20.00	20.00	20.00	20.00	252.00	252.00
Earle & Prew's Express.....	419.00	419.00	419.00	463.00	463.00	463.00	463.00	463.00	463.00	463.00	364.00
Erie Express Company.....							2,625.75	2,641.88	(d)		
Erie and New England Express Company.....			206.27	206.27	(e)						
Long Island Express Company.....			354.12	354.12	354.12	355.81	350.50	360.38	356.81	360.94	352.79
Louisville, New Albany and Chicago Express Company.....	289.40	289.40	377.39	(f)							
National Express Company.....	1,381.69	1,381.69	1,448.79	2,234.89	2,320.06	2,347.50	2,401.94	2,123.02	2,166.84	2,244.83	1,616.00
New England Despatch Express Company.....	2,574.00	2,574.00	2,574.00	2,574.00	2,574.00	2,574.00	2,574.00	2,574.00	2,574.00	2,574.00	2,294.00
New York and Boston Despatch Express Company.....	484.00	484.00	612.00	612.00	584.00	607.00	607.00	607.00	607.00	607.00	632.23
Northern Pacific Express Company.....	586.00	618.00	839.00	3,056.20	3,613.84	3,899.47	3,948.21	3,953.45	3,436.61	3,568.61	4,900.00
Ohio and Mississippi Express Company.....	616.20	616.20	616.20	616.20	616.25	(g)					
Pacific Express Company.....	7,172.09	9,734.70	11,225.00	12,375.05	13,152.86	13,488.18	17,041.51	20,059.30	20,027.66	20,044.48	21,322.60
Philadelphia and Reading Express Company.....	1,094.00	1,118.00	1,118.00	1,167.00	1,263.00	1,383.00	1,383.00	1,383.00	(h)		
Pittsburg and Western Express Company.....				208.87	288.17	288.17	340.37	340.37	371.47	(i)	
St. Louis, Iron Mountain and Southern Express Company.....	685.00	719.00	(j)								
Southern Express Company.....	11,330.30	11,977.02	13,088.35	14,723.29	15,899.76	17,253.19	17,123.09	17,229.10	17,791.62	18,992.42	21,714.00
Texas Express Company.....	2,541.54	3,659.23	4,792.79	4,470.42	4,470.42	4,035.85	1,853.68	2,248.53	1,463.90	1,515.36	(k)
Union Express Company.....	1,853.77	2,170.17	2,770.15	3,165.93	(l)						
United States Express Company.....	12,214.84	13,108.50	14,589.25	14,727.35	14,016.86	15,136.42	15,820.28	19,401.43	22,854.34	20,808.13	21,478.50
United States and Canada Express Company.....	1,861.72	1,861.72	1,861.27	1,744.32	(m)						
Wells, Fargo & Co.'s Express.....	11,696.71	14,035.27	15,094.05	18,305.85	19,735.08	21,745.02	22,221.66	22,898.46	28,495.04	28,843.70	29,096.00
Westcott's Express Company.....	320.01	333.72	352.67	(n)							
West Jersey Express Company.....	182.91	185.91	209.65	212.00	223.86	223.85	222.31	233.02	242.98	245.56	245.06

a Sold to United States Express Company in 1887.

b No information furnished for 1890.

c Sold to United States Express Company in 1886.

d Business transferred to Wells, Fargo & Co.'s Express in 1887.

e Business transferred to Wells, Fargo & Co.'s Express in 1883.

f Express turned over to American Express Company in 1882.

g Operated by Adams Express Company since 1884.

A Service turned over to United States Express Company in 1887.

† Operated by Wells, Fargo & Co.'s Express since 1888.

j Consolidated with Pacific Express Company in 1882.

k Business transferred to Southern Express Company in 1890.

l Good will transferred to Adams Express Company in 1883.

m Business divided between Adams and American Express Companies in 1884.

n Known as the Long Island Express Company after 1882.

Part 3.—BY GROUP TOTALS.

A.—MILEAGE OPERATED OVER RAILWAYS.

GROUPS.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total express mileage operated over railways.	90,649.75	102,614.28	114,129.01	128,688.38	128,801.60	131,557.14	139,202.83	151,271.16	154,406.50	157,897.66	160,597.51
Group I.....	7,176.97	7,281.40	7,827.76	8,979.37	7,771.50	7,737.90	7,673.94	7,676.41	7,650.37	8,186.74	8,815.23
II.....	13,491.23	14,053.77	15,373.55	17,494.37	16,398.09	16,904.34	19,286.20	19,653.59	17,957.48	18,686.66	18,068.78
III.....	15,133.20	17,107.30	18,533.58	23,982.35	21,158.21	20,619.10	22,274.15	23,718.20	21,378.13	21,811.17	21,762.50
IV.....	4,607.55	4,790.75	5,112.45	5,449.27	5,723.24	5,821.32	6,273.47	7,428.25	7,579.84	7,998.13	8,525.50
V.....	7,652.73	8,682.49	9,444.83	10,593.16	11,581.77	12,464.12	12,764.16	14,298.58	15,171.21	16,150.36	16,524.48
VI.....	23,920.62	25,902.99	28,326.34	29,736.29	31,429.61	30,732.45	32,769.53	34,135.77	39,610.65	37,726.56	37,648.42
VII.....	2,265.70	2,449.42	4,035.32	3,559.17	4,467.67	4,806.06	5,550.80	6,985.86	7,346.34	7,878.95	8,783.28
VIII.....	8,784.70	12,514.73	13,288.29	13,319.19	13,802.29	14,247.66	14,073.06	17,617.21	18,344.94	19,342.33	20,154.54
IX.....	2,707.24	4,002.93	5,657.29	6,060.05	6,651.54	7,729.58	7,887.69	8,828.15	8,759.51	8,945.71	9,088.96
X.....	4,909.81	5,828.50	6,529.60	8,915.16	9,817.77	10,494.61	10,649.83	10,929.14	10,608.03	11,170.75	11,023.82

B.—MILEAGE OPERATED OVER WATER LINES.

GROUPS.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total express mileage operated over water lines.	7,036.00	7,096.00	7,366.00	8,393.50	8,376.50	8,538.50	8,689.50	8,724.50	9,014.50	8,207.50	10,882.00
Group I.....	3,195.00	3,255.00	3,545.00	3,392.00	3,352.00	3,417.00	3,417.00	3,343.00	3,594.00	3,864.00	5,026.00
II.....	668.00	668.00	668.00	673.00	686.00	717.00	793.00	958.00	983.00	958.00	1,208.00
III.....	843.00	843.00	823.00	823.00	823.00	823.00	823.00	801.00	801.00	884.00	1,046.00
V.....	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	150.00	
VI.....							20.00	20.00			
VII.....				1.00	1.00	1.00	1.00	1.00	1.00	1.00	
VIII.....				0.50	0.50	0.50	0.50	0.50	0.50	0.50	
X.....	2,180.00	2,180.00	2,180.00	3,354.00	3,354.00	3,430.00	3,485.00	3,451.00	3,485.00	2,350.00	3,602.00

EXPRESS COMPANIES.

507

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 3.—BY GROUP TOTALS—Continued.

C.—MILEAGE OPERATED OVER STAGE LINES.

GROUPS.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total express mileage operated over stage lines.	5,131.00	5,526.00	4,898.00	4,085.00	4,295.00	5,084.00	4,367.00	3,765.00	4,207.00	3,752.00	3,055.00
Group I	69.00	69.00	69.00	25.00	25.00					30.00	90.00
II					3.00	3.00	26.00	41.00	29.00	17.00	3.00
III	33.00	58.00	60.00	70.00	55.00	55.00	27.00	30.00	30.00	99.00	61.00
V	110.00	88.00	101.00	101.00	84.00	74.00	74.00	105.00	105.00	115.00	122.00
VI			5.00	5.00	11.00	11.00	36.00	26.00	47.00	32.00	35.00
VII						294.00	200.00				
VIII		44.00	40.00								
X	4,919.00	5,267.00	4,623.00	3,864.00	4,117.00	4,647.00	4,004.00	3,563.00	3,996.00	3,459.00	2,744.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage operated over all lines.	102,816.75	115,236.28	126,393.01	141,146.88	141,473.19	145,179.64	152,259.33	163,760.66	167,628.00	169,857.16	174,534.51
Group I	10,440.97	10,605.40	11,441.78	12,396.37	11,148.50	11,154.90	11,090.94	11,019.41	11,244.37	12,080.74	13,931.23
II	14,159.23	14,721.77	16,041.55	18,167.37	17,067.09	17,624.34	20,105.20	20,652.59	18,969.48	19,661.96	19,279.78
III	16,009.20	18,008.30	19,416.56	24,875.35	22,036.21	21,497.10	23,124.15	24,549.20	22,209.13	22,794.17	22,869.50
IV	4,607.55	4,790.75	5,112.45	5,449.27	5,723.24	5,821.32	6,273.47	7,428.25	7,579.84	7,998.13	8,525.50
V	7,912.73	8,920.49	9,695.83	10,844.16	11,815.77	12,688.12	12,968.16	14,553.58	15,426.21	16,415.36	16,646.48
VI	23,920.62	25,902.99	28,331.34	29,741.29	31,440.61	30,743.45	32,825.53	34,181.77	39,657.65	37,758.56	37,883.42
VII	2,265.70	2,449.42	4,035.32	3,560.17	4,468.67	5,101.06	5,751.80	6,986.86	7,347.34	7,879.95	8,785.28
VIII	8,784.70	12,558.73	13,328.29	13,319.69	13,802.79	14,248.16	14,073.56	17,617.71	18,345.44	19,342.63	20,154.54
IX	2,707.24	4,002.93	5,657.29	6,660.05	6,651.54	7,729.58	7,867.69	8,828.15	8,759.51	8,945.71	9,088.96
X	12,008.81	13,275.50	13,332.60	16,133.16	17,288.77	18,571.61	18,138.83	17,943.14	18,089.03	16,979.75	17,369.82

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES.

Part 1.—BY COMPANIES IN EACH GROUP.

GROUP I.

A.—MILEAGE OPERATED OVER RAILWAYS.

[The mileage given as operated by express companies over some roads in each group contains a varying amount of mileage lying in other groups.]

ROUTES.	Adams.	Ameri- can.	Domin- ion.	Earle & Prew's.	National.	New England Despatch.	New York and Boston Despatch.	United States.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over railways in Group I.	1,464.00	4,997.00	252.00	146.00	430.00	887.00	399.23	240.00	8,815.23	1,953.90	6,861.33
Atlantic and St. Lawrence Railroad Company.....		166.58							166.58		166.58
Bangor and Piscataquis Railroad Company.....		95.00							95.00		95.00
Bennington and Rutland Railway Company.....					58.91				58.91		58.91
Boston and Albany Railroad Company.....	154.63	342.00				99.00			595.63	253.63	342.00
Boston and Maine Railroad Company.....	147.00	21,210.03				167.00	12.00		21,536.03	326.00	21,210.03
Bridgton and Saco River Railroad Company.....		16.00							16.00		16.00
Canadian Pacific Railway Company.....			6252.00						6252.00		6252.00
Central Vermont Railroad Company.....	65.00	665.10			116.00				846.10	181.00	665.10
Cheshire Railroad Company.....		64.01							64.01		64.01
Concord and Montreal Railroad Company.....		422.75							422.75		422.75
Connecticut River Railroad Company.....		79.85							79.85		79.85
Fall River, Warren and Providence Railroad Company.....				5.79					5.79		5.79
Fitchburg Railroad Company.....		368.29			255.09				623.38	255.09	368.29
Grafton and Upton Railroad.....	16.00								16.00		16.00
Housatonic Railroad Company.....								189.00	189.00		189.00
Knox and Lincoln Railroad.....		50.00							50.00		50.00
Maine Central Railroad Company.....		732.80				251.00			983.80	251.00	732.80
Meriden, Waterbury and Connecticut River Railroad Company.....								28.20	28.20		28.20
Monadnock Railroad Company.....		15.80							15.80		15.80
Monson Railroad Company.....		7.20							7.20		7.20
Montpelier and Wells River Railroad Company.....		38.00							38.00		38.00
Narragansett Pier Railroad.....	8.50								8.50		8.50
Newport and Wickford Railroad Company.....	3.10								3.10		3.10
New York and New England Railroad Company.....	476.27					201.00			677.27	201.00	476.27
New York, New Haven and Hartford Railroad Company.....	453.50	255.09							708.59	182.70	525.89
New York, Providence and Boston Railroad Company.....	64.00	64.00		58.56					186.56	64.00	122.56
Old Colony Railroad Company.....	44.00	136.00		44.00		169.00	387.23		780.23	216.68	563.55
Portland and Rochester Railroad Company.....		52.00							52.00		52.00
Providence and Springfield Railroad Company.....				22.80				22.80	45.60	22.80	22.80
Providence, Warren and Bristol Railroad Company.....				14.85					14.85		14.85
St. Johnsbury and Lake Champlain Railroad Company.....		131.50							131.50		131.50
Sebasticook and Moosehead Railroad Company.....		8.00							8.00		8.00
Shepaug, Litchfield and Northern Railroad Company.....	32.00								32.00		32.00
Somerset Railway Company.....		31.00							31.00		31.00
Upper Coos Railroad Company.....		21.00							21.00		21.00
Woodstock Railroad Company.....		14.00							14.00		14.00
York Harbor and Beach Railroad Company.....		11.00							11.00		11.00

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group I.	292.00	2,275.00		218.00		1,407.00	233.00	601.00	5,026.00	1,626.00	3,400.00
Alton Bay Wolfboro Line.....		18.00							18.00		18.00
Boston and Bangor Steamship Company.....		290.00				428.00			718.00	290.00	428.00
Boston and Gloucester Steamship Company.....		30.00							30.00		30.00
Boston, Halifax and Prince Edward Island Steamboat Company.....		400.00							400.00		400.00
Bridgeport Steamboat Company.....								65.00	65.00		65.00
Canada Atlantic Steamship Company.....		400.00							400.00		400.00
Continental Steamboat Company.....				30.00					30.00		30.00
Frontier Steamboat Company.....		30.00							30.00		30.00
International Steamboat Company.....		635.00				300.00			935.00	300.00	635.00
New Bedford, Martha's Vineyard and Nantucket Steamboat Company.....							52.00		52.00		52.00
New England Terminal Company.....								42.00	42.00		42.00
New Haven Steamboat Company.....								65.00	65.00		65.00
New London Steamboat Company.....	35.00								35.00		35.00
Newport and Narragansett Pier Line.....	9.00								9.00		9.00
Newport and Wickford Steamboat Company.....	12.00								12.00		12.00
New York and Norwalk Steamboat Company.....								45.00	45.00		45.00
Norwich and New York Transportation Company.....	116.00					4366.00	181.00	181.00	116.00		116.00
Old Colony Steamboat Company.....						113.00			113.00	543.00	185.00
Portland Steam Packet Company.....									113.00		113.00
Portland, Mount Desert and Machias Steamboat Company.....		232.00				200.00			432.00	200.00	232.00
Providence and Newport Steamboat Company.....								30.00	30.00		30.00
Stonington Line.....	120.00			188.00				173.00	481.00	293.00	188.00
Yarmouth Steamship Company.....		240.00							240.00		240.00

a Includes 36.75 miles of line in Canada.
b Includes 85.50 miles of line in Canada.

c Includes 52.63 miles of line in Canada.
d New York to Fall River, 181 miles; New York to New Bedford, 185 miles.

EXPRESS COMPANIES.

509

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP I—Continued.

C.—MILEAGE OPERATED OVER STAGE LINES.

ROUTES.	Adams.	Ameri- can.	Domin- ion.	Earle & Prew's.	National.	New England Despatch.	New York and Boston Despatch.	United States.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over stage lines in Group I.		90.00							90.00		90.00
Lines in Maine		70.00							70.00		70.00
Lines in Massachusetts		20.00							20.00		20.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group I	1,756.00	7,362.00	252.00	364.00	430.00	2,294.00	632.23	841.00	13,931.23	3,570.90	10,351.33
----------------------------------	----------	----------	--------	--------	--------	----------	--------	--------	-----------	----------	-----------

GROUP II.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Ameri- can.	Camden and Atlantic.	Long Island.	National.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over railways in Group II.	6,082.00	4,568.00	78.93	352.79	955.00	4,239.00	1,548.00	245.06	18,068.78	646.91	17,421.87
Addison and Pennsylvania Railway Company							46.50		46.50		46.50
Albany and Susquehanna Railroad Company					187.35				187.35		187.35
Allegheny Valley Railroad Company	280.30								280.30		280.30
Annapolis and Baltimore Short Line Railroad Company						27.75			27.75		27.75
Annapolis, Washington and Baltimore Railroad Company						20.50			20.50		20.50
Atlantic City Railroad Company						83.46			83.46		83.46
Baltimore and Delaware Bay Railroad Company	50.00								50.00		50.00
Baltimore and Eastern Shore Railroad Company	30.00					30.00			60.00	30.00	30.00
Baltimore and Ohio Railroad Company (east of Ohio river)						1,109.32			1,109.32		1,109.32
Baltimore and Potomac Railroad Company	95.86								95.86		95.86
Baltimore and Sparrow Point Railroad Company	4.70								4.70		4.70
Bangor and Portland Railway Company						32.51			32.51		32.51
Bath and Hammondport Railroad Company						10.83	9.00		19.83	9.00	10.83
Beech Creek Railroad Company	146.91								146.91		146.91
Bloomsburg and Sullivan Railroad Company						30.00			30.00		30.00
Bradford, Bordell and Kinzua Railroad Company						50.00	62.32		112.32	50.00	62.32
Bradford, Eldred and Cuba Railroad Company						34.29	33.00		67.29	33.00	34.29
Buffalo, Rochester and Pittsburg Railway Company		284.00							284.00		284.00
Camden and Atlantic Railroad Company	59.00		78.93						137.93	59.00	78.93
Carthage and Adirondack Railroad Company		37.00							37.00		37.00
Catsaunqua and Fogelsville Railroad Company						25.50			25.50		25.50
Catskill Mountain Railway Company		19.50							19.50		19.50
Central New England and Western Railroad Company	164.04	42.00							206.04	42.00	164.04
Central Railroad Company of New Jersey	82.00					662.12			744.12	82.00	662.12
Chataugay Railroad Company					72.82				72.82		72.82
Cooperstown and Charlotte Valley Railroad Company					16.00				16.00		16.00
Cornwall Railroad Company						12.67			12.67		12.67
Cornwall and Lebanon Railroad Company	22.96								22.96		22.96
Coudersport and Port Allegheny Railroad Company		17.00							17.00		17.00
Cresson, Clearfield County and New York Short Route Railroad Company	29.10								29.10		29.10
Cumberland Valley Railroad Company	144.93								144.93		144.93
Delaware and Hudson Canal Company	18.00				158.19				176.19	18.00	158.19
Delaware Bay and Cape May Railroad Company							3.50		3.50		3.50
Delaware, Lackawanna and Western Railroad Company						780.89			780.89		780.89
Delaware River Railroad Company								19.97	19.97		19.97
Diamond Valley Railroad Company	12.25								12.25		12.25
Elmira, Cortland and Northern Railroad Company		139.00							139.00		139.00
Erle and Wyoming Valley Railroad Company							62.25		62.25		62.25
Fall Brook Coal Company		231.12							231.12		231.12
Fonda, Johnstown and Gloversville Railroad Company		22.88							22.88		22.88
Gettysburg and Harrisburg Railroad Company	24.60								24.60		24.60
Greenwich and Johnsonville Railway Company					14.65				14.65		14.65
Harrisburg and Potomac Railroad Company	36.90								36.90		36.90
Huntington and Broadtop Mountain Railroad and Coal Company	64.20								64.20		64.20
Kaaterskill Railroad Company		7.50							7.50		7.50

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP II—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTES.	Adams.	Ameri- can.	Camden and Atlantic.	Long Island.	National.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Keeseville, Au Sable Chasm and Lake Champlain Railroad Company.					5.64				5.64		5.64
Lackawanna and Southwestern Railroad Company.						20.00			20.00		20.00
Lancaster, Oxford and Southern Railroad Company.	20.00								20.00		20.00
Lebanon Springs Railroad Company.					57.10				57.10		57.10
Lehigh and Hudson River Railroad Company.							77.20		77.20		77.20
Lehigh Valley Railroad Company.	722.00	96.88							818.88		818.88
Long Island Railroad Company.				352.79					352.79		352.79
Maryland Central Railroad Company.	84.40								84.40		84.40
Middleburg and Schoharie Railroad Company.					5.75				5.75		5.75
Monongahela River Railroad Company.						31.00			31.00		31.00
Montour Railroad Company.		11.00							11.00		11.00
Montrose Railway Company.	28.00								28.00		28.00
Mont Alto Railroad Company.	17.89								17.89		17.89
Newburg, Dutchess and Connecticut Railroad Company.		58.80							58.80		58.80
New Jersey and New York Railroad Company.						47.90			47.90		47.90
New York and Canada Railroad Company.					94.64				94.64		94.64
New York and Greenwood Lake Railway Company.							43.25		43.25		43.25
New York and Massachusetts Railway Company.		34.99							34.99		34.99
New York and Northern Railway Company.		61.00							61.00		61.00
New York Central and Hudson River Railroad Company.		1,420.64			148.00				1,568.64	148.00	1,420.64
New York, Lake Erie and Western Railroad Company.							1,037.85		1,037.85		1,037.85
New York, Ontario and Western Railway.		424.12							424.12		424.12
New York, Philadelphia and Norfolk Railroad Company.	111.46								111.46		111.46
New York, Susquehanna and Western Railroad Company.		157.28					111.91		269.19	111.91	157.28
Northern Central Railroad Company.	372.83								372.83		372.83
Pennsylvania Railroad Company.	2,449.24								2,449.24		2,449.24
Pennsylvania and Northwestern Railroad Company.	70.86								70.86		70.86
Pennsylvania, Poughkeepsie and Boston Railroad Company.	95.62								95.62		95.62
Perkiomen Railroad Company.						38.50			38.50		38.50
Perry County Railroad Company.	11.10								11.10		11.10
Philadelphia and Reading Railroad Company.						843.10			843.10		843.10
Philadelphia, Newtown and New York Railroad Company.						20.90			20.90		20.90
Philadelphia, Wilmington and Baltimore Railroad Company.	533.93								533.93		533.93
Port Jervis, Monticello and New York Railroad Company.		41.05							41.05		41.05
Raritan River Railroad Company.						15.34			15.34		15.34
Reading and Columbia Railroad Company.						47.72			47.72		47.72
Rensselaer and Saratoga Railroad Company.					194.86				194.86		194.86
Reynoldsville and Falls Creek Railroad Company.		14.50							14.50		14.50
Rockaway Valley Railroad Company.						12.00			12.00		12.00
Rome, Watertown and Ogdensburg Railroad Company.		637.00							637.00		637.00
Sharpville Railroad Company.		20.53							20.53		20.53
Silver Lake Railway Company.		6.88							6.88		6.88
Sinnemahoning Valley Railroad Company.		9.00							9.00		9.00
Skaneateles Railroad Company.		5.00							5.00		5.00
Staten Island Rapid Transit Railroad Company.						22.40			22.40		22.40
Stewartstown Railroad Company.	7.20								7.20		7.20
Stony Clove and Catskill Mountain Railroad Company.		14.00							14.00		14.00
Syracuse and Baldwinsville Railroad Company.		6.00							6.00		6.00
Syracuse, Binghamton and New York Railroad Company.						81.00			81.00		81.00
Tioga Railroad.							64.72		64.72		64.72
Tonawanda Valley and Cuba Railroad Company.						30.00			30.00		30.00
Tuckerton Railroad Company.	49.00								49.00		49.00
Ulster and Delaware Railroad Company.		77.61							77.61		77.61
Union Transportation Company.	24.47								24.47		24.47
Wallkill Valley Railroad Company.		32.88							32.88		32.88
Waynesburg and Washington Railroad Company.	28.15								28.15		28.15
Western Maryland Railroad Company.	124.10								124.10		124.10
Western New York and Pennsylvania Railroad Company.		638.86							638.86		638.86
West Jersey Railroad Company.	64.00							221.59	285.59	64.00	221.59
Williamsport and North Branch Railroad Company.						27.00			27.00		27.00
Wilmington and Northern Railroad Company.						92.30			92.30		92.30
Wilkesbarre and Western Railway Company.	22.00								22.00		22.00

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP III—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTES.	Adams.	Ameri- can.	Cincinnati, George- town and Porta- mouth.	Pacific.	United States.	Wells, Fargo & Co. s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Flint and Pere Marquette Railroad Company		649.94					649.94		649.94
Port Wayne, Cincinnati and Louisville Railway Company		132.70					132.70		132.70
Frankfort and Southeastern Railroad Company		26.95					26.95		26.95
Grand Rapids and Indiana Railroad Company	584.17						584.17		584.17
Grand Trunk Railway Company		105.60					105.60		105.60
Hancock and Calumet Railroad Company		20.36					20.36		20.36
Indiana and Illinois Southern Railroad Company	90.00						90.00		90.00
Indiana, Illinois and Iowa Railroad Company					118.00		118.00		118.00
Indianapolis, Decatur and Western Railway Company (in Indiana)		76.75			76.75		153.50	76.75	76.75
Lake Erie and Western Railroad Company					585.84		585.84		585.84
Lake Erie, Alliance and Southern Railway Company	61.00						61.00		61.00
Lake Shore and Michigan Southern Railway Company		339.00			1,338.06		1,677.06	339.00	1,338.06
Lake Side and Marblehead Railroad Company					7.35		7.35		7.35
Louisville, Evansville and St. Louis Consolidated Railroad Com- pany.					297.02		297.02		297.02
Louisville, New Albany and Chicago Railway Company		537.07					537.07		537.07
Louisville, New Albany and Corydon Railroad Company					12.50		12.50		12.50
Manistee and Northeastern Railroad Company		69.71					69.71		69.71
Meadville and Lanesville Railway Company	20.50						20.50		20.50
Michigan Central Railroad Company		529.66					529.66		529.66
Midland Railway Company of Indiana					74.00		74.00		74.00
Mineral Range Railroad Company		17.00					17.00		17.00
New York, Chicago and St. Louis Railroad Company		523.02					523.02		523.02
New York, Lake Erie and Western Railroad Company (west of Salamanca).						596.50	596.50		596.50
Ohio and Mississippi Railroad Company (east of Vincennes)	252.96						252.96		252.96
Ohio and Northwestern Railroad Company	111.50						111.50		111.50
Ohio Southern Railroad Company					118.25		118.25		118.25
Pennsylvania Company	1,363.48						1,363.48		1,363.48
Pittsburg and Lake Erie Railroad Company		163.72					163.72		163.72
Pittsburg and Western Railway Company					56.00	289.18	345.18		345.18
Pittsburg, Cincinnati and St. Louis Railroad Company	465.46						465.46		465.46
Pittsburg, Marion and Chicago Railroad Company	25.00						25.00		25.00
Pittsburg, Shenango and Lake Erie Railroad Company	83.40						83.40		83.40
Pontiac, Oxford and Northern Railroad Company		100.29					100.29		100.29
Saginaw, Tuscola and Huron Railroad Company		66.57					66.57		66.57
St. Clairsville and Northern Railway Company		3.40					3.40		3.40
St. Joseph Valley Railway Company		10.00					10.00		10.00
Scioto Valley and New England Railroad Company	128.74						128.74		128.74
Terre Haute and Indianapolis Railroad Company (in Indiana)	79.00	262.60					341.60	79.00	262.60
Tionesta Valley Railroad Company	49.00						49.00		49.00
Toledo and Ohio Central Railway Company					235.45		235.45		235.45
Toledo and Ohio Central Extension Railroad Company					45.00		45.00		45.00
Toledo and South Haven Railroad Company		37.00					37.00		37.00
Toledo, Ann Arbor and North Michigan Railway Company		286.00					286.00		286.00
Toledo, Columbus and Cincinnati Railroad Company						72.37	72.37		72.37
Toledo, Saginaw and Muskegon Railroad Company		116.00					116.00		116.00
Toledo, St. Louis and Kansas City Railroad Company		450.72					450.72		450.72
Valley Railroad Company of Ohio		87.68					87.68		87.68
Wabash Railroad Company (east of Danville, Ill.)				479.00			479.00		479.00
Warren and Farnsworth Railroad Company	15.26						15.26		15.26
Wheeling and Lake Erie Railway Company						223.55	223.55		223.55
White Water Railroad Company		62.40					62.40		62.40
Zanesville and Ohio River Railroad Company	73.64						73.64		73.64

a Includes 300.30 miles of line in Canada.

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group III	746.00	300.00					1,046.00		1,046.00
Detroit, Grand Haven and Milwaukee Railway Company		85.00					85.00		85.00
Detroit and Cleveland Navigation Company		120.00					120.00		120.00
Lake Michigan and Lake Superior Transportation Company		95.00					95.00		95.00
Pittsburg and Cairo Lines	746.00						746.00		746.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group III	55.00	6.00					61.00		61.00
Lines in Ohio	19.00	6.00					25.00		25.00
Lines in Indiana	9.00						9.00		9.00
Lines in Michigan	27.00						27.00		27.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group III	6,190.00	9,578.75	42.00	479.00	5,129.75	1,450.00	22,869.50	1,258.05	21,611.45
------------------------------------	----------	----------	-------	--------	----------	----------	-----------	----------	-----------

EXPRESS COMPANIES.

513

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP IV.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group IV.....	1,550.50	6,435.00	540.00	8,525.50	51.57	8,473.93
Atlantic and Danville Railway Company.....		218.00		218.00		218.00
Atlantic and North Carolina Railroad Company.....		95.00		95.00		95.00
Atlantic Coast Line Association.....		952.14		952.14		952.14
Baltimore and Ohio Railroad Company (south of Harper's Ferry, W. Va.).....			101.63	101.63		101.63
Barnwell Railway Company.....		9.00		9.00		9.00
Bishopville Railroad Company.....		15.00		15.00		15.00
Blackville, Abston and Newberry Railroad Company.....		30.00		30.00		30.00
Cape Fear and Yadkin Valley Railway Company.....		338.05		338.05		338.05
Carolina Central Railroad Company.....		267.00		267.00		267.00
Charleston and Savannah Railway Company.....		120.60		120.60		120.60
Charleston, Cincinnati and Chicago Railroad Company.....		156.29		156.29		156.29
Charleston, Sumter and Northern Railroad Company.....		70.75		70.75		70.75
Chesapeake and Ohio Railway Company (east of Huntington, W. Va.).....	510.00		311.67	821.67	51.57	770.10
Danville and New River Railroad Company.....		83.00		83.00		83.00
Durham and Northern Railway Company.....		41.00		41.00		41.00
Georgetown and Western Railroad Company.....		36.00		36.00		36.00
Georgia, Carolina and Northern Railway Company.....		62.02		62.02		62.02
Green Pond, Walterboro and Branchville Railway Company.....		12.00		12.00		12.00
Jamesville and Washington Railroad Company.....		22.57		22.57		22.57
Kanawha and Michigan Railroad Company (south of Ohio river).....			64.70	64.70		64.70
Lynchburg and Durham Railroad Company.....		84.00		84.00		84.00
Norfolk and Virginia Beach Railroad Company.....		17.90		17.90		17.90
Norfolk and Western Railroad Company.....		559.00		559.00		559.00
Norfolk Southern Railroad Company.....		74.02		74.02		74.02
Ohio River Railroad Company.....	215.00			215.00		215.00
Palmetto Railroad Company.....		18.20		18.20		18.20
Port Royal and Augusta Railway Company.....		112.00		112.00		112.00
Port Royal and Western Carolina Railway Company.....		228.60		228.60		228.60
Raleigh and Augusta Air Line Railroad Company.....		129.27		129.27		129.27
Raleigh and Gaston Railroad Company.....		107.00		107.00		107.00
Richmond and Danville Railroad Company (east of Atlanta, Ga.).....	335.50	2,123.00		2,458.50		2,458.50
Richmond, Fredericksburg and Potomac Railroad Company.....	81.70			81.70		81.70
Seaboard and Roanoke Railroad Company.....		113.60		113.60		113.60
Shenandoah Valley Railroad Company.....	246.12			246.12		246.12
South Atlantic and Ohio Railroad Company.....		54.82		54.82		54.82
South Carolina Railway Company.....		246.00		246.00		246.00
Valley Railroad Company of Virginia.....			62.00	62.00		62.00
Washington Southern Railway Company.....	33.60			33.60		33.60
West Virginia Central and Pittsburg Railway Company.....	128.58			128.58		128.58
Wilmington, Chadbourne and Conway Railroad Company.....		39.17		39.17		39.17

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group IV.....	1,550.50	6,435.00	540.00	8,525.50	51.57	8,473.93
--	----------	----------	--------	----------	-------	----------

a No mileage over water and stage lines in this group.

GROUP V.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Pacific.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group V.....	1,507.00	687.98	12,898.00	1,431.50	16,524.84	1,060.84	15,463.04
Alabama and Vicksburg Railway Company.....				142.60	142.60		142.60
Alabama Great Southern Railroad Company.....				295.00	295.00		295.00
Alabama Midland Railroad Company.....			207.72		207.72		207.72
Anniston and Atlantic Railroad Company.....			52.36		52.36		52.36
Anniston and Cincinnati Railroad Company.....				35.00	35.00		35.00
Atlanta and Florida Railroad Company.....			105.00		105.00		105.00
Atlanta and West Point Railroad Company.....			86.11		86.11		86.11
Atlantic and Western Railroad Company (of Florida).....			30.00		30.00		30.00
Augusta, Gibson and Sandersville Railroad Company.....			80.00		80.00		80.00
Birmingham Mineral Railroad Company.....			151.01		151.01		151.01
Birmingham, Sheffield and Tennessee River Railway Company.....			106.00		106.00		106.00
Blue Ridge and Atlantic Railroad Company.....			20.90		20.90		20.90
Brunswick and Western Railroad Company.....			171.00		171.00		171.00
Central Railroad and Banking Company of Georgia.....			1,317.46		1,317.46		1,317.46
Chattanooga, Rome and Columbus Railroad Company.....			176.00	140.00	316.00	140.00	176.00
Chesapeake and Nashville Railway Company.....	35.87				35.87		35.87
Chesapeake and Ohio Railway Company (west of Huntington, W. Va.).....	161.50				161.50		161.50
Chesapeake, Ohio and Southwestern Railroad Company.....			398.48		398.48		398.48
Cincinnati and Southeastern Railway Company.....	17.00				17.00		17.00
Cincinnati, New Orleans and Texas Pacific Railway Company.....				336.00	336.00		336.00

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP VII—Continued.

B.—MILEAGE OPERATED OVER WATER LINES.

COMPANIES.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over water lines in Group VII.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	
American Express Company.				1.00	1.00	1.00	1.00	1.00	1.00	1.00	

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group VII.						294.00	200.00				
Wells, Fargo & Co.'s Express.						294.00	200.00				

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group VII.	2,265.70	2,449.42	4,035.32	3,560.17	4,468.67	5,101.06	5,751.80	6,986.86	7,347.34	7,879.95	8,785.58
American Express Company (a)	606.01	770.50	959.02	1.00	1.00	1.00	1.00	550.25	550.25	743.95	755.22
Northern Pacific Express Company.			221.00	564.60	752.30	752.30	752.30	752.30	785.90	785.90	1,228.86
Pacific Express Company.	1,316.00	1,323.70	1,351.40	1,350.60	1,666.40	1,701.84	1,758.80	1,572.83	1,592.07	1,680.51	2,305.49
United States Express Company.	343.69	355.22	355.22	(b)							
Wells, Fargo & Co.'s Express.			1,148.68	1,643.97	2,048.97	2,645.92	3,239.70	4,111.48	4,419.12	4,669.59	4,495.71

a Operations for 1880-1882 over the Chicago, Burlington and Quincy and Fremont, Elkhorn and Missouri Valley railroads; operations for 1887-1890 over the Great Northern and Montana Central railroads.

b No operations in this group after 1882.

GROUP VIII.

A.—MILEAGE OPERATED OVER RAILWAYS.

Total mileage operated over railways in Group VIII.	8,784.70	12,514.73	13,288.29	13,319.19	13,802.29	14,247.66	14,073.06	17,617.21	18,344.94	19,342.33	20,154.54
Adams Express Company.	3,743.32	4,213.67	4,576.43	2,791.84	2,982.97	2,978.27	3,229.42	2,753.47	2,209.86	2,287.22	2,205.00
American Express Company.	68.00	68.00	(a)					61.42	(a)		
Denver and Rio Grande Express.	474.00	786.00	1,165.00	1,559.00	1,500.00	1,317.00	1,317.00	1,347.00	1,463.00	1,493.90	1,687.00
Pacific Express Company.	2,972.09	4,019.10	4,687.10	4,975.03	5,081.05	5,243.07	5,771.83	7,102.49	7,661.51	8,301.00	9,101.23
St. Louis, Iron Mountain and Southern Express Company.	685.00	719.00	(b)								
Southern Express Company.	842.29	919.29	1,039.29	1,344.23	1,362.23	1,735.23	682.94	522.94	321.95	321.95	1,201.00
Texas Express Company.				430.04	430.04	430.04	430.04	430.04	530.36	581.76	(c)
United States Express Company.								1,196.60	1,575.20	1,785.00	1,765.00
Wells, Fargo & Co.'s Express.		1,789.67	1,820.47	2,219.05	2,446.00	2,544.05	2,641.83	4,203.25	4,583.06	4,592.40	4,195.31

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group VIII.				0.50	0.50	0.50	0.50	0.50	0.50	0.50	
American Express Company.				0.50	0.50	0.50	0.50	0.50	0.50	0.50	

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group VIII.		44.00	40.00								
Adams Express Company.		44.00	40.00								

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group VIII.	8,784.70	12,558.73	13,328.29	13,319.69	13,802.79	14,248.16	14,073.56	17,617.71	18,345.44	19,342.83	20,154.54
Adams Express Company.	3,743.32	4,257.67	4,616.43	2,791.84	2,982.97	2,978.27	3,229.42	2,753.47	2,209.86	2,287.22	2,205.00
American Express Company.	68.00	68.00		0.50	0.50	0.50	0.50	61.92	0.50	0.50	
Denver and Rio Grande Express.	474.00	786.00	1,165.00	1,559.00	1,500.00	1,317.00	1,317.00	1,347.00	1,463.00	1,493.00	1,687.00
Pacific Express Company.	2,972.09	4,019.10	4,687.10	4,975.03	5,081.05	5,243.07	5,771.83	7,102.49	7,661.51	8,301.00	9,101.23
St. Louis, Iron Mountain and Southern Express Company.	685.00	719.00	(b)								
Southern Express Company.	842.29	919.29	1,039.29	1,344.23	1,362.23	1,735.23	682.94	522.94	321.95	321.95	1,201.00
Texas Express Company.				430.04	430.04	430.04	430.04	430.04	530.36	581.76	(c)
United States Express Company.								1,196.60	1,575.20	1,785.00	1,765.00
Wells, Fargo & Co.'s Express.		1,789.67	1,820.47	2,219.05	2,446.00	2,544.05	2,641.83	4,203.25	4,583.06	4,592.40	4,195.31

a Operations over the Atchison, Topeka and Santa Fe railroad suspended in 1882; over St. Louis, Kansas City and Colorado railroad in 1887 only.

b Consolidated with Pacific Express Company in 1882.

c Business transferred to Southern Express Company in 1890.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP V—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTES.	Adams.	Pacific.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
Covington and Macon Railroad Company.....			107.00		107.00		107.00
East and West Railroad Company of Alabama.....			117.60		117.60		117.60
East Tennessee, Virginia and Georgia Railway Company.....			1,197.50	68.00	1,265.50	68.00	1,197.50
Elizabethtown, Lexington and Big Sandy Railroad Company.....	139.69				139.69		139.69
Florida Central and Peninsular Railroad Company.....			598.00		598.00		598.00
Florida Southern Railway Company (including Charlotte Harbor division).....			245.51		245.51		245.51
Georgia Railroad Company.....			307.00		307.00		307.00
Georgia Midland and Gulf Railroad Company.....			99.20		99.20		99.20
Georgia Southern and Florida Railroad Company.....			285.00		285.00		285.00
Illinois Central Railroad Company (south of Ohio river).....			894.41		894.41		894.41
Jacksonville, St. Augustine and Halifax River Railway.....			37.03		37.03		37.03
Jacksonville, Tampa and Key West Railway Company.....			200.00		200.00		200.00
Kansas City, Memphis and Birmingham Railroad Company.....			276.57		276.57		276.57
Kentucky Central Railway Company.....	253.81				253.81		253.81
Kentucky Midland Railway Company.....				40.00	40.00		40.00
Kentucky Union Railway Company.....	70.00				70.00		70.00
Knoxville and Ohio Railroad Company.....			80.00		80.00		80.00
Knoxville, Cumberland Gap and Louisville Railroad Company.....			73.00		73.00		73.00
Louisville and Nashville Railroad Company (south of Ohio river).....	752.84		1,342.48		2,095.32	752.84	1,342.48
Louisville and Wadley Railroad Company.....			10.00		10.00		10.00
Louisville, New Orleans and Texas Railway Company.....		656.98	100.00		756.98	100.00	656.98
Louisville, St. Louis and Texas Railway Company.....				142.00	142.00		142.00
Louisville Southern Railway Company.....				37.00	37.00		37.00
Memphis and Charleston Railroad Company.....			330.00		330.00		330.00
Mobile and Birmingham Railway Company.....			163.00		163.00		163.00
Mobile and Northwestern Railroad Company.....		31.00			31.00		31.00
Mobile and Ohio Railroad Company (south of Cairo, Ill.).....			526.00		526.00		526.00
Nashville and Knoxville Railroad Company.....			48.00		48.00		48.00
Nashville, Chattanooga and St. Louis Railway Company.....			652.17		652.17		652.17
New Orleans and Northeastern Railroad Company.....				195.90	195.90		195.90
Ohio and Big Sandy Railroad Company.....	48.29				48.29		48.29
Ohio Valley Railway Company.....			108.13		108.13		108.13
Orange Belt Railway Company.....			152.30		152.30		152.30
Owensboro, Falls of Rough and Green River Railroad.....	28.00				28.00		28.00
Richmond and Danville Railroad Company (west of Atlanta, Ga.).....			566.39		566.39		566.39
Rome Railroad (of Georgia).....			22.00		22.00		22.00
Sandersville and Tennille Railway Company.....			3.50		3.50		3.50
Savannah, Americus and Montgomery Railway Company.....			173.00		173.00		173.00
Savannah, Florida and Western Railway Company.....			569.00		569.00		569.00
South Florida Railroad Company.....			214.96		214.96		214.96
Sylvania Railroad Company.....			15.00		15.00		15.00
Talladega and Coosa Valley Railroad Company.....			24.90		24.90		24.90
Tavares and Gulf Railroad Company.....			28.00		28.00		28.00
Tavares, Orlando and Atlantic Railroad Company.....			33.20		33.20		33.20
Tennessee Midland Railroad Company.....			136.00		136.00		136.00
Troy and Tiptonville Railroad Company.....			4.60		4.60		4.60
Tuskegee Railroad Company.....			5.50		5.50		5.50
Western and Atlantic Railroad Company.....			138.00		138.00		138.00
Western Railway Company of Alabama.....			132.01		132.01		132.01

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group V.....	122.00				122.00		122.00
Lines in Kentucky.....	122.00				122.00		122.00

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group V.....	1,620.00	687.98	12,898.00	1,431.50	16,646.48	1,060.84	15,585.64
---------------------------------------	----------	--------	-----------	----------	-----------	----------	-----------

a No mileage over water lines in this group.

EXPRESS COMPANIES.

505

TABLE 1.—MILEAGE OPERATED BY EXPRESS COMPANIES OVER RAILWAYS, WATER LINES, AND STAGE LINES DURING THE YEARS 1880-1890, INCLUSIVE—Continued.

Part 2.—BY COMPANY TOTALS.

A.—MILEAGE OPERATED OVER RAILWAYS.

COMPANIES.	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890
Total mileage operated over rail- ways.	90,649.75	102,614.28	114,129.01	128,088.38	128,801.69	131,557.14	139,202.83	151,271.16	154,406.50	157,897.66	160,597.51
Adams Express Company.....	14,351.57	16,803.07	17,985.91	18,119.48	18,207.47	18,570.23	19,709.08	20,784.75	24,401.73	24,817.90	23,800.50
American Express Company.....	24,903.08	26,355.08	28,573.17	33,681.61	34,655.51	33,873.78	34,384.64	36,175.87	36,796.70	38,510.75	40,133.00
Baltimore and Ohio Express Company.....	1,535.49	1,592.97	1,635.07	1,688.29	2,675.69	2,686.09	2,803.69	4,852.02	(a)		
Canadian Express Company.....	67.79	73.50	73.50	66.76	66.76	79.27	79.27	79.27	79.93	81.17	78.93
Canadian Express Company.....	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	237.81	(b)
Chesapeake, Georgetown and Portsmouth Express Company.....	20.40	34.80	34.80	34.80	34.80	42.00	42.00	42.00	42.00	42.00	42.00
Delaware, Lackawanna and Western Express Company.....	818.42	925.52	1,065.92	1,021.87	1,021.87	1,021.50	1,057.75	(c)			
Denver and Rio Grande Express.....	474.00	786.00	1,165.00	1,928.00	1,869.00	1,686.00	1,686.00	1,756.00	1,872.00	1,902.00	2,100.50
Union Express Company.....	20.00				20.00	20.00	20.00	20.00	20.00	252.00	252.00
Wells, Fargo & Prew's Express.....	201.00	201.00	201.00	245.00	245.00	245.00	245.00	245.00	245.00	245.00	146.00
Western Express Company.....							2,625.75	2,641.38	(d)		
Long Island Express Company.....			206.27	206.27	(e)						
Long Island Express Company.....			354.12	354.12	354.12	355.81	356.59	360.38	356.81	360.94	352.79
Long Island Express Company.....	289.40	289.40	377.39	(f)							
Long Island Express Company.....	1,150.69	1,150.69	1,217.79	2,003.89	2,089.06	2,116.50	2,147.94	1,868.02	1,926.84	2,013.83	1,385.00
Long Island Express Company.....	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	1,167.00	887.00
Long Island Express Company.....	251.00	251.00	379.00	379.00	351.00	374.00	374.00	374.00	374.00	374.00	899.23
Long Island Express Company.....	586.00	618.00	839.00	1,882.20	2,439.84	2,649.47	2,643.21	3,853.45	3,336.61	3,468.61	4,719.00
Long Island Express Company.....	616.20	616.20	616.20	616.20	616.25	(g)					
Long Island Express Company.....	7,172.09	9,734.70	11,225.00	12,375.05	13,152.86	13,488.18	17,041.51	18,763.30	18,697.66	19,849.48	21,127.00
Long Island Express Company.....	1,094.00	1,118.00	1,118.00	1,167.00	1,263.00	1,383.00	1,383.00	1,383.00	(h)		
Long Island Express Company.....				208.87	288.17	288.17	340.37	340.37	371.47	(i)	
Long Island Express Company.....	685.00	719.00	(j)								
Long Island Express Company.....	11,330.30	11,977.02	13,088.35	14,723.29	15,899.76	17,253.19	17,123.69	17,229.10	17,791.62	18,992.42	21,714.00
Long Island Express Company.....	2,541.54	3,659.23	4,792.79	4,470.42	4,470.42	4,035.85	1,853.68	2,248.53	1,463.96	1,515.36	(k)
Long Island Express Company.....	1,953.77	2,170.17	2,770.15	3,165.93	(l)						
Long Island Express Company.....	12,214.84	13,108.50	14,589.25	14,727.35	14,016.86	15,136.42	15,820.28	19,336.43	22,528.34	20,492.13	20,587.50
Long Island Express Company.....	1,861.72	1,861.72	1,861.27	1,744.32	(m)						
Long Island Express Company.....	4,603.71	6,644.27	8,347.05	12,261.85	13,438.08	14,624.02	15,837.66	17,280.46	22,444.04	23,329.70	23,128.00
Long Island Express Company.....	320.01	333.72	352.67	(n)							
Long Island Express Company.....	182.91	185.91	209.65	212.00	223.36	223.85	222.31	233.02	242.98	245.50	245.06

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines.	7,036.00	7,096.00	7,366.00	8,393.50	8,376.50	8,538.50	8,689.50	8,724.50	9,014.50	8,207.50	10,882.00
Adams Express Company.....	1,104.00	1,104.00	1,104.00	1,076.00	1,076.00	1,111.00	1,187.00	1,385.00	1,410.00	1,493.00	1,437.00
American Express Company.....	1,663.00	1,723.00	1,993.00	1,874.50	1,857.50	1,908.50	1,928.50	1,734.50	1,714.50	1,959.50	2,863.00
Wells, Fargo & Prew's Express.....	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00	218.00
National Express Company.....	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00	231.00
Long Island Express Company.....	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00	1,407.00
Long Island Express Company.....	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00	233.00
Long Island Express Company.....				1,174.00	1,174.00	1,250.00	1,305.00	100.00	100.00	100.00	161.00
Long Island Express Company.....								1,296.00	1,330.00	195.00	195.00
Long Island Express Company.....								65.00	316.00	316.00	891.00
Long Island Express Company.....	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,180.00	2,055.00	2,055.00	2,055.00	3,246.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines.	5,131.00	5,526.00	4,898.00	4,065.00	4,295.00	5,064.00	4,367.00	3,765.00	4,207.00	3,752.00	3,055.00
Adams Express Company.....	189.00	261.00	270.00	135.00	128.00	118.00	90.00	124.00	124.00	193.00	181.00
American Express Company.....	29.00	54.00	61.00	66.00	50.00	25.00	50.00	54.00	78.00	100.00	130.00
National Express Company.....							23.00	24.00	9.00		
Long Island Express Company.....											20.00
Wells, Fargo & Co.'s Express.....	4,913.00	5,211.00	4,567.00	3,864.00	4,117.00	4,941.00	4,204.00	3,563.00	3,996.00	3,459.00	2,724.00

a Sold to United States Express Company in 1887.

b No information furnished for 1890.

c Sold to United States Express Company in 1886.

d Business transferred to Wells, Fargo & Co.'s Express in 1887.

e Business transferred to Wells, Fargo & Co.'s Express in 1883.

f Express turned over to American Express Company in 1882.

g Operated by Adams Express Company since 1884.

h Service turned over to United States Express Company in 1887.

i Operated by Wells, Fargo & Co.'s Express since 1888.

j Consolidated with Pacific Express Company in 1882.

k Business transferred to Southern Express Company in 1890.

l Good will transferred to Adams Express Company in 1883.

m Business divided between Adams and American Express Companies in 1884.

n Known as the Long Island Express Company after 1882.

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP VI—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTES.	Adams.	Ameri- can.	Northern Pacific.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Tabor and Northern Railroad Company.....		8.79						8.79		8.79
Terre Haute and Indianapolis Railroad Company (in Illinois).....	158.30							158.30		158.30
Terre Haute and Peoria Railroad Company.....		172.90						172.90		172.90
Toledo, Peoria and Western Railroad Company.....	247.10							247.10		247.10
Wabash Railroad Company (west of Danville, Ill.).....		131.52		1,343.02				1,474.54	131.52	1,343.02
Wabash, Chester and Western Railroad Company.....	42.26							42.26		42.26
Wilmar and Sioux Falls Railway Company.....		146.91						146.91		146.91
Wisconsin Central Railroad Company.....			777.00					777.00		777.00
Wisconsin, Minnesota and Pacific Railway Company.....						216.60		216.60		216.60

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group VI.....	4.00	31.00						35.00		35.00
Lines in Iowa.....		26.00						26.00		26.00
Lines in Illinois.....	4.00							4.00		4.00
Lines in Missouri.....		5.00						5.00		5.00

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group VI.....	5,107.00	20,571.03	2,388.14	1,951.00	152.00	6,986.25	728.00	37,883.42	745.36	37,138.06
--	----------	-----------	----------	----------	--------	----------	--------	-----------	--------	-----------

a No mileage over water lines in this group.

GROUP VII.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	American.	Northern Pacific.	Pacific.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group VII.....	755.22	1,228.86	2,305.49	4,495.71	8,785.28		8,785.28
Carbon Cut-off Railroad Company.....			19.17		19.17		19.17
Chicago, Burlington and Quincy Railroad Company (west of Missouri river).....				2,955.82	2,955.82		2,955.82
Chicago, St. Paul, Minneapolis and Omaha Railway Company (west of Missouri river).....				241.12	241.12		241.12
Denver and Boulder Valley Railroad Company.....			26.97		26.97		26.97
Fremont, Elkhorn and Missouri Valley Railroad Company.....				1,298.77	1,298.77		1,298.77
Great Northern Railway Company (west of Minot, N. Dak.).....	562.72				562.72		562.72
Kansas City and Omaha Railroad Company.....			193.69		193.69		193.69
Laramie, North Park and Pacific Railroad and Telegraph Company.....			13.19		13.19		13.19
Montana Central Railway Company.....	192.50				192.50		192.50
Montana Union Railway Company.....			72.22		72.22		72.22
Northern Pacific Railroad Company (in Montana and Idaho).....		1,228.86			1,228.86		1,228.86
Omaha and Republican Valley Railroad Company.....			576.33		576.33		576.33
St. Joseph and Grand Island Railroad Company.....			252.52		252.52		252.52
Union Pacific Railway Company (north of Kansas).....			1,151.40		1,151.40		1,151.40

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group VII.....	755.22	1,228.86	2,305.49	4,495.71	8,785.28		8,785.28
---	--------	----------	----------	----------	----------	--	----------

a No mileage over water and stage lines in this group.

EXPRESS COMPANIES.

517

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP VIII.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Denver and Rio Grande.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group VIII.....	2,205.00	1,687.00	9,101.23	1,201.00	1,765.00	4,195.31	20,154.54	153.68	20,000.86
Arkansas Midland Railway Company.....				48.70			48.70		48.70
Atchison, Topeka and Santa Fe Railroad Company (west of Missouri river).....						3,968.44	3,968.44		3,968.44
Atlantic and Pacific Railroad Company (Central division).....						112.05	112.05		112.05
Cape Girardeau Southwestern Railway Company (of Missouri).....	104.38						104.38		104.38
Central Branch Union Pacific Railroad Company.....			388.00				388.00		388.00
Chicago, Rock Island and Pacific Railway Company (west of Missouri river).....					1,733.00		1,733.00		1,733.00
Choctaw Coal and Railway Company.....	31.00						31.00		31.00
Colorado Midland Railway Company.....		287.70					287.70		287.70
Current River Railroad Company.....				81.95			81.95		81.95
Denver and Rio Grande Railroad Company.....		1,399.30					1,399.30		1,399.30
Denver, Leadville and Gunnison Railway Company.....			324.03				324.03		324.03
Eureka Springs Railway Company (Arkansas and Missouri).....	18.50						18.50		18.50
Fort Worth and Rio Grande Railway Company.....			90.92				90.92		90.92
Hutchinson and Southern Railroad Company.....					32.00		32.00		32.00
Junction City and Fort Kearney Railway Company.....			87.80				87.80		87.80
Kansas Central Railroad Company.....			166.22				166.22		166.22
Kansas City and Southern Railway Company.....			115.00				115.00		115.00
Kansas City, Clinton and Springfield Railway Company.....	162.63						162.63		162.63
Kansas City, Fort Scott and Memphis Railroad Company.....	399.73			293.30			693.03	22.43	670.60
Kansas City, Fort Smith and Southern Railway Company.....	34.10						34.10		34.10
Kansas City, Wyandotte and Northwestern Railroad Company.....			234.80				234.80		234.80
Leavenworth, Topeka and Southwestern Railway Company.....			56.08				56.08		56.08
Little Rock and Memphis Railroad Company.....			131.25	131.25			262.50	131.25	131.25
Manhattan, Alma and Burlingame Railway Company.....						56.62	56.62		56.62
Missouri, Kansas and Texas Railway Company (north of Denison, Tex.).....			898.58				898.58		898.58
Missouri Pacific Railway Company.....			3,119.00				3,119.00		3,119.00
St. Louis and San Francisco Railway Company.....	1,329.47						1,329.47		1,329.47
St. Louis, Arkansas and Texas Railway Company (in Arkansas and Missouri).....				581.80			581.80		581.80
St. Louis, Iron Mountain and Southern Railway Company.....			1,545.00				1,545.00		1,545.00
St. Louis, Kansas City and Colorado Railroad Company.....						58.20	58.20		58.20
Salina and Southwestern Railway Company.....			63.15				63.15		63.15
Solomon Railroad Company.....			57.04				57.04		57.04
South Park and Leadville Short Line Railroad Company.....			7.37				7.37		7.37
Union Pacific Railway Company (in Kansas and Colorado).....			674.87				674.87		674.87
Union Pacific, Denver and Gulf Railway Company.....			916.68				916.68		916.68
Union Pacific, Lincoln and Colorado Railway Company.....			225.44				225.44		225.44
White and Black River Valley Railway Company.....				64.00			64.00		64.00
Wichita and Western Railway Company.....	125.19						125.19		125.19

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group VIII.....	2,205.00	1,687.00	9,101.23	1,201.00	1,765.00	4,195.31	20,154.54	153.68	20,000.86
--	----------	----------	----------	----------	----------	----------	-----------	--------	-----------

a No mileage over water and stage lines in this group.

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP IX.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group IX.....	4,562.96	1,028.00	256.00	3,242.00	9,088.96	54.00	9,034.96
Austin and Northwestern Railroad Company	76.00				76.00		76.00
East Louisiana Railroad Company.....			30.70		30.70		30.70
Fort Worth and Denver City Railway Company.....	469.03				469.03		469.03
Fort Worth and New Orleans Railway Company.....		40.70			40.70		40.70
Galveston, Houston and Henderson Railroad Company of 1882.....		50.00			50.00		50.00
Gulf, Colorado and Santa Fe Railway Company				992.64	992.64		992.64
Houston and Texas Central Railway Company.....		54.00		507.00	561.00	54.00	507.00
Houston, Central Arkansas and Northern Railroad Company.....			49.36		49.36		49.36
Houston East and West Texas Railway Company.....		192.00			192.00		192.00
International and Great Northern Railroad Company.....	775.40				775.40		775.40
Minden Railroad Company.....			5.25		5.25		5.25
Missouri, Kansas and Texas Railway Company (south of Denison, Tex.).....	876.03				876.03		876.03
St. Louis, Arkansas and Texas Railway Company (in Texas).....		640.30			640.30		640.30
San Antonio and Aransas Pass Railway Company	637.50				637.50		637.50
Southern Pacific Company (east of El Paso)				1,742.36	1,742.36		1,742.36
Texas Central Railway Company	230.00				230.00		230.00
Texas and Pacific Railway Company	1,499.00				1,499.00		1,499.00
Texas Trunk Railroad Company.....		51.00			51.00		51.00
Vicksburg, Shreveport and Pacific Railroad Company			170.69		170.69		170.69

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group IX.....	4,562.96	1,028.00	256.00	3,242.00	9,088.96	54.00	9,034.96
--	----------	----------	--------	----------	----------	-------	----------

a No mileage over water and stage lines in this group.

EXPRESS COMPANIES.

519

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP X.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Denver and Rio Grande.	Northern Pacific.	Pacific.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group X.....	413.50	1,102.00	2,039.34	7,468.98	11,023.82		11,023.82
Atlantic and Pacific Railroad Company (western division).....				818.00	818.00		818.00
Arcata and Mad River Railroad Company.....				15.00	15.00		15.00
Carson and Colorado Railroad Company.....				300.00	300.00		300.00
El River and Eureka Railroad Company.....				25.00	25.00		25.00
Eureka and Palisade Railroad Company.....				84.00	84.00		84.00
Maricopa and Phoenix Railroad Company.....				34.36	34.36		34.36
Nevada-California-Oregon Railway Company.....				70.00	70.00		70.00
New Mexico and Arizona Railroad Company.....				87.78	87.78		87.78
Northern Pacific Coast Railroad Company.....				88.00	88.00		88.00
Northern Pacific Railroad Company (west of Idaho).....		824.00			824.00		824.00
Olympia and Chehalis Valley Railway Company.....		15.00			15.00		15.00
Oregon and Washington Territory Railroad Company.....		161.00			161.00		161.00
Oregonian Railway Company.....				182.00	182.00		182.00
Oregon Pacific Railway Company.....				127.90	127.90		127.90
Oregon Railway and Navigation Company.....			640.42	330.54	970.96		970.96
Oregon Short Line and Utah Northern Railway Company.....			1,398.92		1,398.92		1,398.92
Pacific Coast Railway Company.....				76.10	76.10		76.10
Prescott and Arizona Central Railway Company.....				73.30	73.30		73.30
Rio Grande Western Railway Company.....	373.70				373.70		373.70
San Francisco and North Pacific Railway Company.....				162.25	162.25		162.25
Santa Fe Southern Railway Company.....	39.80				39.80		39.80
Seattle, Lake Shore and Eastern Railway Company.....				155.80	155.80		155.80
Southern California Railway Company.....				476.20	476.20		476.20
Southern Pacific Company (west of El Paso).....				4,310.55	4,310.55		4,310.55
Spokane Falls and Northern Railroad Company.....		102.00			102.00		102.00
Virginia and Truckee Railroad Company.....				52.20	52.20		52.20

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group X.....		161.00	195.00	3,246.00	3,602.00		3,602.00
Colorado River Steamboat Company.....				365.00	365.00		365.00
Oregon Development Company.....				450.00	450.00		450.00
Oregon Railway and Navigation Company.....			195.00		195.00		195.00
Pacific Coast Steamship Company.....		161.00		1,576.00	1,737.00		1,737.00
Southern Pacific Company Steamship Line.....				125.00	125.00		125.00
Union Pacific Steamship Company.....				730.00	730.00		730.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group X.....		20.00		2,724.00	2,744.00		2,744.00
Lines in Arizona.....				133.00	133.00		133.00
Lines in California.....				2,003.00	2,003.00		2,003.00
Lines in Nevada.....				353.00	353.00		353.00
Lines in Oregon.....		20.00		235.00	255.00		255.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group X.....	413.50	1,283.00	2,234.34	13,438.98	17,369.82		17,369.82
---------------------------------------	--------	----------	----------	-----------	-----------	--	-----------

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP II—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTE.	Adams.	Ameri- can.	Camden and Atlantic.	Long Island.	National.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Keeseville, Au Sable Chasm and Lake Champlain Railroad Company.					5.64				5.64		5.64
Lackawanna and Southwestern Railroad Company.						20.00			20.00		20.00
Lancaster, Oxford and Southern Railroad Company.	20.00								20.00		20.00
Lebanon Springs Railroad Company.					57.10				57.10		57.10
Lehigh and Hudson River Railroad Company.							77.20		77.20		77.20
Lehigh Valley Railroad Company.	722.00	96.88							818.88		818.88
Long Island Railroad Company.				352.79					352.79		352.79
Maryland Central Railway Company.	84.40								84.40		84.40
Middleburg and Schoharie Railroad Company.					5.75				5.75		5.75
Monongahela River Railroad Company.						31.00			31.00		31.00
Montour Railroad Company.		11.00							11.00		11.00
Montrose Railway Company.	28.00								28.00		28.00
Mont Alto Railroad Company.	17.89								17.89		17.89
Newburg, Dutchess and Connecticut Railroad Company.		58.80							58.80		58.80
New Jersey and New York Railroad Company.						47.90			47.90		47.90
New York and Canada Railroad Company.					94.64				94.64		94.64
New York and Greenwood Lake Railway Company.							43.25		43.25		43.25
New York and Massachusetts Railway Company.		34.99							34.99		34.99
New York and Northern Railway Company.		61.00							61.00		61.00
New York Central and Hudson River Railroad Company.		1,420.64			148.00				1,568.64	148.00	1,420.64
New York, Lake Erie and Western Railroad Company.							1,037.85		1,037.85		1,037.85
New York, Ontario and Western Railway.		424.12							424.12		424.12
New York, Philadelphia and Norfolk Railroad Company.	111.46								111.46		111.46
New York, Susquehanna and Western Railroad Company.		157.28					111.91		269.19	111.91	157.28
Northern Central Railroad Company.	372.83								372.83		372.83
Pennsylvania Railroad Company.	2,449.24								2,449.24		2,449.24
Pennsylvania and Northwestern Railroad Company.	70.86								70.86		70.86
Pennsylvania, Poughkeepsie and Boston Railroad Company.	95.62								95.62		95.62
Perkiomen Railroad Company.						38.50			38.50		38.50
Perry County Railroad Company.	11.10								11.10		11.10
Philadelphia and Reading Railroad Company.						843.10			843.10		843.10
Philadelphia, Newtown and New York Railroad Company.						20.90			20.90		20.90
Philadelphia, Wilmington and Baltimore Railroad Company.	533.93								533.93		533.93
Port Jervis, Monticello and New York Railroad Company.		41.05							41.05		41.05
Raritan River Railroad Company.						15.34			15.34		15.34
Reading and Columbia Railroad Company.						47.72			47.72		47.72
Rensselaer and Saratoga Railroad Company.					194.86				194.86		194.86
Reynoldsville and Falls Creek Railroad Company.		14.50							14.50		14.50
Rockaway Valley Railroad Company.						12.00			12.00		12.00
Rome, Watertown and Ogdensburg Railroad Company.		637.00							637.00		637.00
Sharpville Railroad Company.		20.53							20.53		20.53
Silver Lake Railway Company.		6.86							6.86		6.86
Sinnemahoning Valley Railroad Company.		9.00							9.00		9.00
Skaneateles Railroad Company.		5.00							5.00		5.00
Staten Island Rapid Transit Railroad Company.						22.40			22.40		22.40
Stewartstown Railroad Company.	7.20								7.20		7.20
Stony Clove and Catskill Mountain Railroad Company.		14.00							14.00		14.00
Syracuse and Baldwinsville Railroad Company.		6.00							6.00		6.00
Syracuse, Binghamton and New York Railroad Company.						81.00			81.00		81.00
Tioga Railroad.							64.72		64.72		64.72
Tonawanda Valley and Cuba Railroad Company.						30.00			30.00		30.00
Tuckerton Railroad Company.	49.00								49.00		49.00
Ulster and Delaware Railroad Company.		77.61							77.61		77.61
Union Transportation Company.	24.47								24.47		24.47
Wallkill Valley Railroad Company.		32.88							32.88		32.88
Waynesburg and Washington Railroad Company.	28.15								28.15		28.15
Western Maryland Railroad Company.	124.10								124.10		124.10
Western New York and Pennsylvania Railroad Company.		638.86							638.86		638.86
West Jersey Railroad Company.	64.00							221.59	285.59	64.00	221.59
Williamsport and North Branch Railroad Company.						27.00			27.00		27.00
Wilmington and Northern Railroad Company.						92.30			92.30		92.30
Wilkesbarre and Western Railway Company.	22.00								22.00		22.00

EXPRESS COMPANIES.

511

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP II—Continued.

B.—MILEAGE OPERATED OVER WATER LINES.

ROUTES.	Adams.	Ameri- can.	Camden and Atlantic.	Long Island.	National.	United States.	Wells, Fargo & Co.'s.	West Jersey.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over water lines in Group II.	399.00	288.00			231.00	290.00			1,208.00	82.00	1,126.00
Baltimore Steam Packet Company	200.00								200.00		200.00
Seneca Lake steamers		25.00							25.00		25.00
Lape Vincent and Kingston Line		20.00							20.00		20.00
Wayuga Lake Steamboat Company						40.00			40.00		40.00
Charlotte and Point Hope Line		65.00							65.00		65.00
Chester River Steamboat Company						65.00			65.00		65.00
Shoptank Steamboat Company						100.00			100.00		100.00
Kenka Lake Steamboat Company	23.00	22.00				20.00			65.00	42.00	23.00
Lake Champlain Transportation Company					88.00				88.00		88.00
Maryland Steam Packet Company	100.00								100.00		100.00
New York, Philadelphia and Norfolk Railroad Company	36.00								36.00		36.00
Ogdensburg and Prescott Line		2.00							2.00		2.00
People's Line steamers					143.00				143.00		143.00
Bondout Line steamers		90.00							90.00		90.00
Salem and Philadelphia Steamboat line						65.00			65.00		65.00
Seneca Lake steamers	40.00	40.00							80.00	40.00	40.00
Thousand Islands Steamboat Company		24.00							24.00		24.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group II.		3.00							3.00		3.00
Lines in New York		3.00							3.00		3.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group II.	6,481.00	4,859.00	78.93	352.79	1,186.00	4,529.00	1,548.00	245.06	19,279.78	728.91	18,550.87
------------------------------------	----------	----------	-------	--------	----------	----------	----------	--------	-----------	--------	-----------

GROUP III.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Ameri- can.	Cincinnati, George- town and Porte- mouth.	Pacific.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over railways in Group III.	5,389.00	9,272.75	42.00	479.00	5,129.75	1,450.00	21,762.50	1,258.05	20,504.45
Baltimore and Ohio Railroad Company (west of Ohio river)					577.00		577.00		577.00
Baltimore and Ohio Southwestern Railroad Company					282.03		282.03		282.03
Bellaire, Zanesville and Cincinnati Railroad Company	110.75				110.75		110.75		110.75
Chautauqua Lake Railway Company		23.85					23.85		23.85
Chicago and Atlantic Railway Company						268.40	268.40		268.40
Chicago and Grand Trunk Railway Company		335.27					335.27		335.27
Chicago and West Michigan Railway Company		408.40					408.40		408.40
Chicago, Kalamazoo and Saginaw Railway Company		44.20					44.20		44.20
Chicago, St. Louis and Pittsburg Railroad Company	532.15						532.15		532.15
Cincinnati and Muskingum Valley Railway Company	148.45						148.45		148.45
Cincinnati, Georgetown and Portsmouth Railroad Company			42.00				42.00		42.00
Cincinnati, Hamilton and Dayton Railroad Company		13.00			346.80		359.80	13.00	346.80
Cincinnati, Jackson and Mackinaw Railroad Company		349.10					349.10		349.10
Cincinnati, Lebanon and Northern Railway Company		37.05					37.05		37.05
Cincinnati Northwestern Railroad Company					6.50		6.50		6.50
Cincinnati, Saginaw and Mackinaw Railroad Company		52.97					52.97		52.97
Cincinnati, Sandusky and Cleveland Railway Company					190.81		190.81		190.81
Cincinnati, Wabash and Michigan Railway Company					166.00		166.00		166.00
Cleveland and Canton Railroad Company		196.45					196.45		196.45
Cleveland and Marietta Railroad Company		104.70					104.70		104.70
Cleveland and Western Railroad Company					56.00		56.00		56.00
Cleveland, Akron and Columbus Railway Company	193.85						193.85		193.85
Cleveland, Cincinnati, Chicago and St. Louis Railway Company (east of Terre Haute)	462.00	810.55					1,272.55	462.00	810.55
Cleveland, Lorain and Wheeling Railroad Company		164.30					164.30		164.30
Columbus and Cincinnati Midland Railroad Company					71.20		71.20		71.20
Columbus, Hocking Valley and Toledo Railway Company	317.27	123.00					440.27	123.00	317.27
Columbus, Shawnee and Hocking Railway Company	66.30				138.50		204.80	66.30	138.50
Dayton and Union Railway Company					46.69		46.69		46.69
Dayton, Fort Wayne and Chicago Railway Company		99.00			260.70		359.70	99.00	260.70
Detroit, Bay City and Alpena Railroad Company		232.98					232.98		232.98
Detroit, Grand Haven and Milwaukee Railway Company		189.00					189.00		189.00
Detroit, Lansing and Northern Railroad Company		323.68					323.68		323.68
Dunkirk, Allegheny Valley and Pittsburg Railroad Company		90.60					90.60		90.60
Evansville and Terre Haute Railroad Company	164.12						164.12		164.12
Findlay, Fort Wayne and Western Railroad Company					23.30		23.30		23.30

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP III—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTES.	Adams.	Ameri- can.	Cincinnati, George- town and Porta- month.	Pacific.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Flint and Pere Marquette Railroad Company		649.94					649.94		649.94
Fort Wayne, Cincinnati and Louisville Railway Company		132.70					132.70		132.70
Frankfort and Southeastern Railroad Company		26.95					26.95		26.95
Grand Rapids and Indiana Railroad Company	584.17						584.17		584.17
Grand Trunk Railway Company		105.60					105.60		105.60
Hancock and Calumet Railroad Company		20.36					20.36		20.36
Indiana and Illinois Southern Railroad Company	90.00						90.00		90.00
Indiana, Illinois and Iowa Railroad Company					118.00		118.00		118.00
Indianapolis, Decatur and Western Railway Company (in Indiana)		76.75			76.75		153.50	76.75	76.75
Lake Erie and Western Railroad Company					585.84		585.84		585.84
Lake Erie, Alliance and Southern Railway Company	61.00						61.00		61.00
Lake Shore and Michigan Southern Railway Company		339.00			1,338.06		1,677.06	339.00	1,338.06
Lake Side and Marblehead Railroad Company					7.35		7.35		7.35
Louisville, Evansville and St. Louis Consolidated Railroad Company					297.02		297.02		297.02
Louisville, New Albany and Chicago Railway Company		537.07					537.07		537.07
Louisville, New Albany and Corydon Railroad Company					12.50		12.50		12.50
Manistee and Northeastern Railroad Company		69.71					69.71		69.71
Meadville and Linesville Railway Company	20.50						20.50		20.50
Michigan Central Railroad Company		1,529.66					1,529.66		1,529.66
Midland Railway Company of Indiana					74.00		74.00		74.00
Mineral Range Railroad Company		17.00					17.00		17.00
New York, Chicago and St. Louis Railroad Company		523.02					523.02		523.02
New York, Lake Erie and Western Railroad Company (west of Salamanca).						506.50	506.50		506.50
Ohio and Mississippi Railroad Company (east of Vincennes)	252.96						252.96		252.96
Ohio and Northwestern Railroad Company	111.50						111.50		111.50
Ohio Southern Railroad Company					118.25		118.25		118.25
Pennsylvania Company	1,363.48						1,363.48		1,363.48
Pittsburg and Lake Erie Railroad Company		163.72					163.72		163.72
Pittsburg and Western Railway Company					56.00	289.18	345.18		345.18
Pittsburg, Cincinnati and St. Louis Railroad Company	465.46						465.46		465.46
Pittsburg, Marion and Chicago Railroad Company	25.00						25.00		25.00
Pittsburg, Shenango and Lake Erie Railroad Company	83.40						83.40		83.40
Pontiac, Oxford and Northern Railroad Company		100.20					100.20		100.20
Saginaw, Tuscola and Huron Railroad Company		66.57					66.57		66.57
St. Clairsville and Northern Railway Company		3.40					3.40		3.40
St. Joseph Valley Railway Company		10.00					10.00		10.00
Scioto Valley and New England Railroad Company	128.74						128.74		128.74
Terre Haute and Indianapolis Railroad Company (in Indiana)	79.00	262.60					341.60	79.00	262.60
Tionesta Valley Railroad Company	40.00						40.00		40.00
Toledo and Ohio Central Railway Company					235.45		235.45		235.45
Toledo and Ohio Central Extension Railroad Company					45.00		45.00		45.00
Toledo and South Haven Railroad Company		37.00					37.00		37.00
Toledo, Ann Arbor and North Michigan Railway Company		286.00					286.00		286.00
Toledo, Columbus and Cincinnati Railroad Company						72.37	72.37		72.37
Toledo, Saginaw and Muskegon Railroad Company		116.00					116.00		116.00
Toledo, St. Louis and Kansas City Railroad Company		450.72					450.72		450.72
Valley Railroad Company of Ohio		87.68					87.68		87.68
Wabash Railroad Company (east of Danville, Ill.)				479.00			479.00		479.00
Warren and Farnsworth Railroad Company	15.26						15.26		15.26
Wheeling and Lake Erie Railway Company						223.55	223.55		223.55
White Water Railroad Company		62.40					62.40		62.40
Zanesville and Ohio River Railroad Company	73.64						73.64		73.64

a Includes 300.30 miles of line in Canada.

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group III	746.00	300.00					1,046.00		1,046.00
Detroit, Grand Haven and Milwaukee Railway Company		85.00					85.00		85.00
Detroit and Cleveland Navigation Company		120.00					120.00		120.00
Lake Michigan and Lake Superior Transportation Company		95.00					95.00		95.00
Pittsburg and Cairo lines	746.00						746.00		746.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group III	55.00	6.00					61.00		61.00
Lines in Ohio	19.00	6.00					25.00		25.00
Lines in Indiana	9.00						9.00		9.00
Lines in Michigan	27.00						27.00		27.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group III	6,190.00	9,578.75	42.00	479.00	5,129.75	1,450.00	22,869.50	1,258.05	21,611.45
------------------------------------	----------	----------	-------	--------	----------	----------	-----------	----------	-----------

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP IV.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group IV.....	1,550.50	6,435.00	540.00	8,525.50	51.57	8,473.93
Atlantic and Danville Railway Company.....		218.00		218.00		218.00
Atlantic and North Carolina Railroad Company.....		95.00		95.00		95.00
Atlantic Coast Line Association.....		952.14		952.14		952.14
Baltimore and Ohio Railroad Company (south of Harper's Ferry, W. Va.).....			101.63	101.63		101.63
Barnwell Railway Company.....		9.00		9.00		9.00
Bishopville Railroad Company.....		15.00		15.00		15.00
Blackville, Alston and Newberry Railroad Company.....		30.00		30.00		30.00
Cape Fear and Yadkin Valley Railway Company.....		338.05		338.05		338.05
Carolina Central Railroad Company.....		267.00		267.00		267.00
Charleston and Savannah Railway Company.....		120.60		120.60		120.60
Charleston, Cincinnati and Chicago Railroad Company.....		156.29		156.29		156.29
Charleston, Sumter and Northern Railroad Company.....		70.75		70.75		70.75
Chesapeake and Ohio Railway Company (east of Huntington, W. Va.).....	510.00		311.67	821.67	51.57	770.10
Danville and New River Railroad Company.....		83.00		83.00		83.00
Durham and Northern Railway Company.....		41.00		41.00		41.00
Georgetown and Western Railroad Company.....		36.00		36.00		36.00
Georgia, Carolina and Northern Railway Company.....		62.02		62.02		62.02
Green Pond, Walterboro and Branchville Railway Company.....		12.00		12.00		12.00
Jamesville and Washington Railroad Company.....		22.57		22.57		22.57
Kanawha and Michigan Railroad Company (south of Ohio river).....			64.70	64.70		64.70
Lynchburg and Durham Railroad Company.....		84.00		84.00		84.00
Norfolk and Virginia Beach Railroad Company.....		17.90		17.90		17.90
Norfolk and Western Railroad Company.....		559.00		559.00		559.00
Norfolk Southern Railroad Company.....		74.02		74.02		74.02
Ohio River Railroad Company.....	215.00			215.00		215.00
Palmetto Railroad Company.....		18.20		18.20		18.20
Port Royal and Augusta Railway Company.....		112.00		112.00		112.00
Port Royal and Western Carolina Railway Company.....		228.60		228.60		228.60
Raleigh and Augusta Air Line Railroad Company.....		129.27		129.27		129.27
Raleigh and Gaston Railroad Company.....		107.00		107.00		107.00
Richmond and Danville Railroad Company (east of Atlanta, Ga.).....	335.50	2,123.00		2,458.50		2,458.50
Richmond, Fredericksburg and Potomac Railroad Company.....	81.70			81.70		81.70
Seaboard and Roanoke Railroad Company.....		113.60		113.60		113.60
Shenandoah Valley Railroad Company.....	246.12			246.12		246.12
South Atlantic and Ohio Railroad Company.....		54.82		54.82		54.82
South Carolina Railway Company.....		246.00		246.00		246.00
Valley Railroad Company of Virginia.....			62.00	62.00		62.00
Washington Southern Railway Company.....	33.60			33.60		33.60
West Virginia Central and Pittsburg Railway Company.....	128.58			128.58		128.58
Wilmington, Chadbourne and Conway Railroad Company.....		39.17		39.17		39.17

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group IV.....	1,550.50	6,435.00	540.00	8,525.50	51.57	8,473.93
--	----------	----------	--------	----------	-------	----------

a No mileage over water and stage lines in this group.

GROUP V.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Pacific.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group V.....	1,507.00	687.98	12,898.00	1,431.50	16,524.84	1,060.84	15,463.64
Alabama and Vicksburg Railway Company.....				142.60	142.60		142.60
Alabama Great Southern Railroad Company.....				295.00	295.00		295.00
Alabama Midland Railroad Company.....			207.72		207.72		207.72
Anniston and Atlantic Railroad Company.....			52.36		52.36		52.36
Anniston and Cincinnati Railroad Company.....				35.00	35.00		35.00
Atlanta and Florida Railroad Company.....			105.00		105.00		105.00
Atlanta and West Point Railroad Company.....			86.11		86.11		86.11
Atlantic and Western Railroad Company (of Florida).....			30.00		30.00		30.00
Augusta, Gibson and Sandersville Railroad Company.....			80.00		80.00		80.00
Birmingham Mineral Railroad Company.....			151.01		151.01		151.01
Birmingham, Sheffield and Tennessee River Railway Company.....			106.00		106.00		106.00
Blue Ridge and Atlantic Railroad Company.....			20.90		20.90		20.90
Brunswick and Western Railroad Company.....			171.00		171.00		171.00
Central Railroad and Banking Company of Georgia.....			1,317.46		1,317.46		1,317.46
Chattanooga, Rome and Columbus Railroad Company.....			176.00	140.00	316.00	140.00	176.00
Chesapeake and Nashville Railway Company.....	35.87				35.87		35.87
Chesapeake and Ohio Railway Company (west of Huntington, W. Va.).....	161.50				161.50		161.50
Chesapeake, Ohio and Southwestern Railroad Company.....			398.48		398.48		398.48
Cincinnati and Southeastern Railway Company.....	17.00				17.00		17.00
Cincinnati, New Orleans and Texas Pacific Railway Company.....				336.00	336.00		336.00

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP V—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTES.	Adams.	Pacific.	Southern.	United States.	Total operated mileage.	Duplicated mileage.	Net mileage.
Covington and Macon Railroad Company.....			107.00		107.00		107.00
East and West Railroad Company of Alabama.....			117.60		117.60		117.60
East Tennessee, Virginia and Georgia Railway Company.....			1,197.50	68.00	1,265.50	68.00	1,197.50
Elizabethtown, Lexington and Big Sandy Railroad Company.....	139.69				139.69		139.69
Florida Central and Peninsular Railroad Company.....			598.00		598.00		598.00
Florida Southern Railway Company (including Charlotte Harbor division).....			245.51		245.51		245.51
Georgia Railroad Company.....			307.00		307.00		307.00
Georgia Midland and Gulf Railroad Company.....			99.20		99.20		99.20
Georgia Southern and Florida Railroad Company.....			285.00		285.00		285.00
Illinois Central Railroad Company (south of Ohio river).....			894.41		894.41		894.41
Jacksonville, St. Augustine and Halifax River Railway.....			37.03		37.03		37.03
Jacksonville, Tampa and Key West Railway Company.....			200.00		200.00		200.00
Kansas City, Memphis and Birmingham Railroad Company.....			276.57		276.57		276.57
Kentucky Central Railway Company.....	253.81				253.81		253.81
Kentucky Midland Railway Company.....				40.00	40.00		40.00
Kentucky Union Railway Company.....	70.00				70.00		70.00
Knoxville and Ohio Railroad Company.....			60.00		60.00		60.00
Knoxville, Cumberland Gap and Louisville Railroad Company.....			73.00		73.00		73.00
Louisville and Nashville Railroad Company (south of Ohio river).....	752.84		1,342.48		2,095.32	752.84	1,342.48
Louisville and Wadley Railroad Company.....			10.00		10.00		10.00
Louisville, New Orleans and Texas Railway Company.....		656.98	100.00		756.98	100.00	656.98
Louisville, St. Louis and Texas Railway Company.....				142.00	142.00		142.00
Louisville Southern Railway Company.....				37.00	37.00		37.00
Memphis and Charleston Railroad Company.....			330.00		330.00		330.00
Mobile and Birmingham Railway Company.....			163.00		163.00		163.00
Mobile and Northwestern Railroad Company.....		31.00			31.00		31.00
Mobile and Ohio Railroad Company (south of Cairo, Ill.).....			526.00		526.00		526.00
Nashville and Knoxville Railroad Company.....			48.00		48.00		48.00
Nashville, Chattanooga and St. Louis Railway Company.....			652.17		652.17		652.17
New Orleans and Northeastern Railroad Company.....				195.90	195.90		195.90
Ohio and Big Sandy Railroad Company.....	48.29				48.29		48.29
Ohio Valley Railway Company.....			106.13		106.13		106.13
Orange Belt Railway Company.....			152.30		152.30		152.30
Owensboro, Falls of Rough and Green River Railroad.....	28.00				28.00		28.00
Richmond and Danville Railroad Company (west of Atlanta, Ga.).....			566.39		566.39		566.39
Rome Railroad (of Georgia).....			22.00		22.00		22.00
Sandersville and Tennille Railway Company.....			3.50		3.50		3.50
Savannah, Americus and Montgomery Railway Company.....			173.00		173.00		173.00
Savannah, Florida and Western Railway Company.....			569.00		569.00		569.00
South Florida Railroad Company.....			214.96		214.96		214.96
Sylvania Railroad Company.....			15.00		15.00		15.00
Talladega and Coosa Valley Railroad Company.....			24.90		24.90		24.90
Tavares and Gulf Railroad Company.....			28.00		28.00		28.00
Tavares, Orlando and Atlantic Railroad Company.....			33.20		33.20		33.20
Tennessee Midland Railroad Company.....			136.00		136.00		136.00
Troy and Tiptonville Railroad Company.....			4.60		4.60		4.60
Tuskegee Railroad Company.....			5.50		5.50		5.50
Western and Atlantic Railroad Company.....			138.00		138.00		138.00
Western Railway Company of Alabama.....			132.01		132.01		132.01

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group V.....	122.00				122.00		122.00
Lines in Kentucky.....	122.00				122.00		122.00

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group V.....	1,629.00	687.98	12,898.00	1,431.50	16,646.48	1,060.84	15,585.64
---------------------------------------	----------	--------	-----------	----------	-----------	----------	-----------

(a) No mileage over water lines in this group.

EXPRESS COMPANIES.

515

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP VI.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Ameri- can.	Northern Pacific.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Total mileage operated over railways in Group VI.	5,103.00	20,540.03	2,388.14	1,951.00	152.00	6,986.25	728.00	37,848.42	745.36	37,103.06
Abbotsford and Northeastern Railroad Company.			15.00					15.00		15.00
Atchison, Topeka and Santa Fe Railroad Company (east of Kansas city, Mo.).							613.75	613.75		613.75
Burlington, Cedar Rapids and Northern Railway Company.						1,046.40		1,046.40		1,046.40
Cedar Rapids and Marion Railway Company.		6.00						6.00		6.00
Centralia and Chester Railroad Company.	8.50							8.50		8.50
Centreville, Moravia and Albia Railroad Company.						24.10		24.10		24.10
Chicago and Alton Railroad Company.						848.68		848.68		848.68
Chicago and Eastern Illinois Railway Company.		435.75						435.75		435.75
Chicago and Iowa Railroad Company.		77.36						77.36		77.36
Chicago and Northwestern Railway Company.		4,218.68				85.00		4,303.68	85.00	4,218.68
Chicago and Ohio River Railroad Company.		86.00						86.00		86.00
Chicago, Burlington and Kansas City Railway Company.		220.10						220.10		220.10
Chicago, Burlington and Northern Railroad Company of Wisconsin and Minnesota.		371.11						371.11		371.11
Chicago, Burlington and Quincy Railroad Company (east of Missouri river).		2,171.70					114.25	2,285.95	114.25	2,171.70
Chicago, Fort Madison and Des Moines Railway Company.		45.00						45.00		45.00
Chicago, Iowa and Dakota Railway Company.		26.50						26.50		26.50
Chicago, Milwaukee and St. Paul Railway Company.	2,910.00	2,937.00						5,847.00	161.08	5,685.92
Chicago, Peoria and St. Louis Railway Company.	120.00							120.00		120.00
Chicago, Rock Island and Pacific Railway Company (east of Missouri river).						1,588.80		1,588.80		1,588.80
Chicago, St. Paul and Kansas City Railway Company.						816.55		816.55		816.55
Chicago, St. Paul, Minneapolis and Omaha Railway Company (east of Missouri river).		1,148.21						1,148.21		1,148.21
Cleveland, Cincinnati, Chicago and St. Louis Railway Com- pany (west of Terre Haute).	213.68	270.00						483.68		483.68
Des Moines and Kansas City Railway Company.		112.00						112.00		112.00
Des Moines and Northern Railway Company.						41.61		41.61		41.61
Des Moines and Northwestern Railway Company.						114.00		114.00		114.00
Dubuque and Sioux City Railroad Company.		599.59						599.59		599.59
Duluth and Iron Range Railroad Company.						127.05		127.05		127.05
Duluth, Red Wing and Southern Railway Company.		24.63						24.63		24.63
Duluth, South Shore and Atlantic Railway Company.		558.77						558.77		558.77
Eastern Railway Company of Minnesota.		185.26						185.26		185.26
Elgin, Joliet and Eastern Railway Company.						130.00		130.00		130.00
Fulton County Narrow Gauge Railway Company.		61.00						61.00		61.00
Grand Tower and Carbondale Railroad.	32.90							32.90		32.90
Great Northern Railway Company (east of Minot, N. D.).		2,211.95						2,211.95		2,211.95
Green Bay, Winona and St. Paul Railway Company.						249.60		249.60		249.60
Hannibal and St. Joseph Railroad Company.		295.24						295.24		295.24
Humeston and Shenandoah Railroad Company.		112.53						112.53		112.53
Illinois Central Railroad Company (north of Ohio river).		1,381.18						1,381.18		1,381.18
Indianapolis, Decatur and Western Railway Company (in Illinois).		75.76				75.76		151.52	75.76	75.76
Iowa Central Railway Company.						488.40		488.40		488.40
Jacksonville Southeastern Railway Company.	134.30							134.30		134.30
Kankakee and Seneca Railroad Company.		42.08						42.08		42.08
Kansas City, St. Joseph and Council Bluffs Railroad Company.		307.99						307.99		307.99
Keokuk and Western Railroad.				147.70				147.70		147.70
Litchfield, Carrollton and Western Railroad Company.	51.65							51.65		51.65
Louisville and Nashville Railroad Company (north of Ohio river).	208.00							208.00		208.00
Mason City and Fort Dodge Railroad Company.		92.00						92.00		92.00
Milwaukee and Northern Railroad Company.		330.45						330.45		330.45
Milwaukee, Lake Shore and Western Railway Company.						623.00		623.00		623.00
Minneapolis and St. Louis Railway Company.						367.70		367.70		367.70
Minneapolis, St. Paul and Sault Ste. Marie Railway Com- pany.		805.35						805.35		805.35
Mobile and Ohio Railroad Company (north of Cairo).					152.00			152.00		152.00
Northern Pacific Railroad Company (east of Montana).			1,596.14					1,596.14		1,596.14
Ohio and Mississippi Railway Company (west of Vincennes).	375.52							375.52		375.52
Omaha and St. Louis Railway Company.				145.00				145.00		145.00
Ottumwa and Kirkville Railway Company.		11.66						11.66		11.66
Pawnee Railroad Company.		6.61						6.61		6.61
Peoria and Pekin Union Railroad Company.		18.00						18.00		18.00
Peoria, Decatur and Evansville Railway Company.	114.00	143.48						257.48		257.48
Quincy, Omaha and Kansas City Railway Company.				137.53				137.53		137.53
Rock Island and Peoria Railway Company.		45.00				113.00		113.00		113.00
St. Louis and Chicago Railway Company.		81.75		81.75				163.50	81.75	81.75
St. Louis and Hannibal Railway Company.		96.00		96.00				192.00	96.00	96.00
St. Louis, Alton and Springfield Railroad Company.	239.04							239.04		239.04
St. Louis, Keokuk and Northwestern Railway Company.		227.80						227.80		227.80
St. Paul and Duluth Railroad Company.	247.75							247.75		247.75
Sault Ste. Marie and Southwestern Railway Company.		37.00						37.00		37.00
Sioux City and Northern Railway Company.		96.00						96.00		96.00
Sioux City and Pacific Railroad.		107.42						107.42		107.42

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP VI—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS—Continued.

ROUTES.	Adams.	Ameri- can.	Northern Pacific.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Dupli- cated mileage.	Net mileage.
Tabor and Northern Railroad Company.....		8.79						8.79		8.79
Terre Haute and Indianapolis Railroad Company (in Illinois).....	158.30							158.30		158.30
Terre Haute and Peoria Railroad Company.....		172.90						172.90		172.90
Toledo, Peoria and Western Railroad Company.....	247.10							247.10		247.10
Wabash Railroad Company (west of Danville, Ill.).....		131.52		1,343.02				1,474.54	131.52	1,343.02
Wabash, Chester and Western Railroad Company.....	42.26							42.26		42.26
Wilmar and Sioux Falls Railway Company.....		146.91						146.91		146.91
Wisconsin Central Railroad Company.....			777.00					777.00		777.00
Wisconsin, Minnesota and Pacific Railway Company.....						216.00		216.00		216.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group VI.....	4.00	31.00						35.00		35.00
Lines in Iowa.....		26.00						26.00		26.00
Lines in Illinois.....	4.00							4.00		4.00
Lines in Missouri.....		5.00						5.00		5.00

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group VI.....	5,107.00	20,571.03	2,388.14	1,951.00	152.00	6,986.25	728.00	37,883.42	745.36	37,138.06
--	----------	-----------	----------	----------	--------	----------	--------	-----------	--------	-----------

a No mileage over water lines in this group.

GROUP VII.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	American.	Northern Pacific.	Pacific.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group VII.....	755.22	1,228.86	2,305.49	4,495.71	8,785.28		8,785.28
Carbon Cut-off Railroad Company.....			19.17		19.17		19.17
Chicago, Burlington and Quincy Railroad Company (west of Missouri river).....				2,955.82	2,955.82		2,955.82
Chicago, St. Paul, Minneapolis and Omaha Railway Company (west of Missouri river).....				241.12	241.12		241.12
Denver and Boulder Valley Railroad Company.....			26.97		26.97		26.97
Fremont, Elkhorn and Missouri Valley Railroad Company.....				1,298.77	1,298.77		1,298.77
Great Northern Railway Company (west of Minot, N. Dak.).....	562.72				562.72		562.72
Kansas City and Omaha Railroad Company.....			193.69		193.69		193.69
Laramie, North Park and Pacific Railroad and Telegraph Company.....			13.19		13.19		13.19
Montana Central Railway Company.....	192.50				192.50		192.50
Montana Union Railway Company.....			72.22		72.22		72.22
Northern Pacific Railroad Company (in Montana and Idaho).....		1,228.86			1,228.86		1,228.86
Omaha and Republican Valley Railroad Company.....			576.33		576.33		576.33
St. Joseph and Grand Island Railroad Company.....			252.52		252.52		252.52
Union Pacific Railway Company (north of Kansas).....			1,151.40		1,151.40		1,151.40

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group VII.....	755.22	1,228.86	2,305.49	4,495.71	8,785.28		8,785.28
---	--------	----------	----------	----------	----------	--	----------

a No mileage over water and stage lines in this group.

EXPRESS COMPANIES.

517

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP VIII.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Adams.	Denver and Rio Grande.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group VIII.....	2,205.00	1,687.00	9,101.23	1,201.00	1,765.00	4,195.31	20,154.54	153.68	20,000.86
Arkansas Midland Railway Company.....				48.70			48.70		48.70
Atchison, Topeka and Santa Fe Railroad Company (west of Missouri river).....						3,968.44	3,968.44		3,968.44
Atlantic and Pacific Railroad Company (Central division).....						112.05	112.05		112.05
Cape Girardeau Southwestern Railway Company (of Missouri).....	104.38						104.38		104.38
Central Branch Union Pacific Railroad Company.....			388.00				388.00		388.00
Chicago, Rock Island and Pacific Railway Company (west of Missouri river).....					1,733.00		1,733.00		1,733.00
Choctaw Coal and Railway Company.....	31.00						31.00		31.00
Colorado Midland Railway Company.....		287.70					287.70		287.70
Current River Railroad Company.....				81.95			81.95		81.95
Denver and Rio Grande Railroad Company.....		1,399.30					1,399.30		1,399.30
Denver, Leadville and Gunnison Railway Company.....			324.03				324.03		324.03
Eureka Springs Railway Company (Arkansas and Missouri).....	18.50						18.50		18.50
Fort Worth and Rio Grande Railway Company.....			90.92				90.92		90.92
Hutchinson and Southern Railroad Company.....					32.00		32.00		32.00
Junction City and Fort Kearney Railway Company.....			87.80				87.80		87.80
Kansas Central Railroad Company.....			166.22				166.22		166.22
Kansas City and Southern Railway Company.....			115.00				115.00		115.00
Kansas City, Clinton and Springfield Railway Company.....	162.63						162.63		162.63
Kansas City, Fort Scott and Memphis Railroad Company.....	399.73			293.30			693.03	22.43	670.60
Kansas City, Fort Smith and Southern Railway Company.....	34.10						34.10		34.10
Kansas City, Wyandotte and Northwestern Railroad Company.....			234.80				234.80		234.80
Leavenworth, Topeka and Southwestern Railway Company.....			56.08				56.08		56.08
Little Rock and Memphis Railroad Company.....			131.25				131.25		131.25
Manhattan, Alma and Burlingame Railway Company.....						56.62	56.62		56.62
Missouri, Kansas and Texas Railway Company (north of Denton, Tex.).....			898.58				898.58		898.58
Missouri Pacific Railway Company.....			3,119.00				3,119.00		3,119.00
St. Louis and San Francisco Railway Company.....	1,329.47						1,329.47		1,329.47
St. Louis, Arkansas and Texas Railway Company (in Arkansas and Missouri).....				581.80			581.80		581.80
St. Louis, Iron Mountain and Southern Railway Company.....			1,545.00				1,545.00		1,545.00
St. Louis, Kansas City and Colorado Railroad Company.....						58.20	58.20		58.20
Salina and Southwestern Railway Company.....			63.15				63.15		63.15
Solomon Railroad Company.....			57.04				57.04		57.04
South Park and Leadville Short Line Railroad Company.....			7.37				7.37		7.37
Union Pacific Railway Company (in Kansas and Colorado).....			674.87				674.87		674.87
Union Pacific, Denver and Gulf Railway Company.....			916.68				916.68		916.68
Union Pacific, Lincoln and Colorado Railway Company.....			225.44				225.44		225.44
White and Black River Valley Railway Company.....				64.00			64.00		64.00
Wichita and Western Railway Company.....	125.19						125.19		125.19

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group VIII.....	2,205.00	1,687.00	9,101.23	1,201.00	1,765.00	4,195.31	20,154.54	153.68	20,000.86
--	----------	----------	----------	----------	----------	----------	-----------	--------	-----------

a No mileage over water and stage lines in this group.

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP IX.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group IX.....	4,562.96	1,028.00	256.00	3,242.00	9,088.96	54.00	9,034.96
Austin and Northwestern Railroad Company	76.00				76.00		76.00
East Louisiana Railroad Company			30.70		30.70		30.70
Fort Worth and Denver City Railway Company	469.03				469.03		469.03
Fort Worth and New Orleans Railway Company		40.70			40.70		40.70
Galveston, Houston and Henderson Railroad Company of 1882		50.00			50.00		50.00
Gulf, Colorado and Santa Fe Railway Company				992.64	992.64		992.64
Houston and Texas Central Railway Company		54.00		507.00	561.00	54.00	507.00
Houston, Central Arkansas and Northern Railroad Company			49.36		49.36		49.36
Houston East and West Texas Railway Company		192.00			192.00		192.00
International and Great Northern Railroad Company	775.40				775.40		775.40
Minden Railroad Company			5.25		5.25		5.25
Missouri, Kansas and Texas Railway Company (south of Denison, Tex.)	876.03				876.03		876.03
St. Louis, Arkansas and Texas Railway Company (in Texas)		640.30			640.30		640.30
San Antonio and Aransas Pass Railway Company	637.50				637.50		637.50
Southern Pacific Company (east of El Paso)				1,742.36	1,742.36		1,742.36
Texas Central Railway Company	230.00				230.00		230.00
Texas and Pacific Railway Company	1,499.00				1,499.00		1,499.00
Texas Trunk Railroad Company		51.00			51.00		51.00
Vicksburg, Shreveport and Pacific Railroad Company			170.60		170.60		170.60

D.—MILEAGE OPERATED OVER ALL LINES. (a)

Total express mileage in Group IX	4,562.96	1,028.00	256.00	3,242.00	9,088.96	54.00	9,034.96
---	----------	----------	--------	----------	----------	-------	----------

a No mileage over water and stage lines in this group.

EXPRESS COMPANIES.

519

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Part 1.—BY COMPANIES IN EACH GROUP—Continued.

GROUP X.

A.—MILEAGE OPERATED OVER RAILWAYS.

ROUTES.	Denver and Rio Grande.	Northern Pacific.	Pacific.	Wells, Fargo & Co.'s.	Total operated mileage.	Duplicated mileage.	Net mileage.
Total mileage operated over railways in Group X.....	413.50	1,102.00	2,039.34	7,468.98	11,023.82		11,023.82
Atlantic and Pacific Railroad Company (western division).....				818.00	818.00		818.00
Arcata and Mad River Railroad Company.....				15.00	15.00		15.00
Carson and Colorado Railroad Company.....				300.00	300.00		300.00
Elk River and Eureka Railroad Company.....				25.00	25.00		25.00
Eureka and Palisade Railroad Company.....				84.00	84.00		84.00
Maricopa and Phoenix Railroad Company.....				34.36	34.36		34.36
Nevada-California-Oregon Railway Company.....				70.00	70.00		70.00
New Mexico and Arizona Railroad Company.....				87.78	87.78		87.78
Northern Pacific Coast Railroad Company.....				88.00	88.00		88.00
Northern Pacific Railroad Company (west of Idaho).....		824.00			824.00		824.00
Olympia and Chehalis Valley Railway Company.....		15.00			15.00		15.00
Oregon and Washington Territory Railroad Company.....		161.00			161.00		161.00
Oregonian Railway Company.....				182.00	182.00		182.00
Oregon Pacific Railway Company.....				127.90	127.90		127.90
Oregon Railway and Navigation Company.....			640.42	330.54	970.96		970.96
Oregon Short Line and Utah Northern Railway Company.....			1,398.92		1,398.92		1,398.92
Pacific Coast Railway Company.....				76.10	76.10		76.10
Prescott and Arizona Central Railway Company.....				73.30	73.30		73.30
Rio Grande Western Railway Company.....	373.70				373.70		373.70
San Francisco and North Pacific Railway Company.....				162.25	162.25		162.25
Santa Fe Southern Railway Company.....	39.80				39.80		39.80
Seattle, Lake Shore and Eastern Railway Company.....				155.80	155.80		155.80
Southern California Railway Company.....				476.20	476.20		476.20
Southern Pacific Company (west of El Paso).....				4,310.55	4,310.55		4,310.55
Spokane Falls and Northern Railroad Company.....		102.00			102.00		102.00
Virginia and Truckee Railroad Company.....				52.20	52.20		52.20

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines in Group X.....		161.00	195.00	3,246.00	3,602.00		3,602.00
Colorado River Steamboat Company.....				365.00	365.00		365.00
Oregon Development Company.....				450.00	450.00		450.00
Oregon Railway and Navigation Company.....			195.00		195.00		195.00
Pacific Coast Steamship Company.....		161.00		1,576.00	1,737.00		1,737.00
Southern Pacific Company Steamship Line.....				125.00	125.00		125.00
Union Pacific Steamship Company.....				730.00	730.00		730.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines in Group X.....		20.00		2,724.00	2,744.00		2,744.00
Lines in Arizona.....				133.00	133.00		133.00
Lines in California.....				2,003.00	2,003.00		2,003.00
Lines in Nevada.....				353.00	353.00		353.00
Lines in Oregon.....		20.00		235.00	255.00		255.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage in Group X.....	413.50	1,283.00	2,234.34	13,438.98	17,369.82		17,369.82
---------------------------------------	--------	----------	----------	-----------	-----------	--	-----------

STATISTICS OF TRANSPORTATION.

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Parts 2 and 3.—BY COMPANY AND GROUP TOTALS.

A.—MILEAGE OPERATED OVER RAILWAYS.

GROUPS.	Adams.	American.	Camden and Atlantic.	Cincinnati, George-town and Ports-mouth.	Denver and Rio Grande.	Dominton.	Earle & Prew's.	Long Island.	National.	New Eng-land De-spatch.
Total mileage operated over rail-ways.	23,300.50	40,133.00	78.93	42.00	2,100.50	252.00	146.00	352.79	1,385.00	887.00
Group I.....	1,464.00	a4,997.00				b252.00	146.00		430.00	887.00
II.....	6,082.00	4,568.00	78.93					352.79	955.00	
III.....	5,389.00	c9,272.75		42.00						
IV.....	1,550.50									
V.....	1,507.00									
VI.....	5,103.00	20,540.03								
VII.....		755.22								
VIII.....	2,205.00				1,687.00					
IX.....										
X.....					413.50					

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines.	1,437.00	2,863.00					218.00		231.00	1,407.00
Group I.....	292.00	2,275.00					218.00			1,407.00
II.....	399.00	288.00							231.00	
III.....	746.00	300.00								
X.....										

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines.	181.00	130.00								
Group I.....		90.00								
II.....		3.00								
III.....	55.00	6.00								
V.....	122.00									
VI.....	4.00	31.00								
X.....										

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage operated over all lines.	24,918.50	43,126.00	78.93	42.00	2,100.50	252.00	304.00	352.79	1,616.00	2,294.00
Group I.....	1,756.00	a7,362.00				b252.00	304.00		430.00	2,294.00
II.....	6,481.00	4,859.00	78.93					352.79	1,186.00	
III.....	6,190.00	c9,578.75		42.00						
IV.....	1,550.50									
V.....	1,629.00									
VI.....	5,107.00	20,571.03								
VII.....		755.22								
VIII.....	2,205.00				1,687.00					
IX.....										
X.....					413.50					

a Includes 89.28 miles of line in Canada.

b Includes 85.50 miles of line in Canada.

c Includes 300.30 miles of line in Canada.

EXPRESS COMPANIES.

521

TABLE 2.—MILEAGE OPERATED BY EXPRESS COMPANIES ON JUNE 30, 1890, BY ROUTES—Continued.

Parts 2 and 3.—BY COMPANY AND GROUP TOTALS—Continued.

A.—MILEAGE OPERATED OVER RAILWAYS.

GROUPS.	New York and Boston Despatch.	Northern Pacific.	Pacific.	Southern.	United States.	Wells, Fargo & Co.'s.	West Jer- sey.	Total.	Duplicated mileage.	Net mile- age.
Total mileage operated over rail- ways.	399.23	4,719.00	21,127.00	21,714.00	20,587.50	23,128.00	245.06	a160,597.51	5,924.31	a154,673.20
Group I.....	399.23				240.00			68,815.23	1,953.00	66,861.33
II.....					4,239.00	1,548.00	245.06	18,068.78	646.91	17,421.87
III.....			479.00		5,129.75	1,450.00		c21,762.50	1,258.05	c20,504.45
IV.....				6,435.00	540.00			8,525.50	51.57	8,473.93
V.....			687.98	12,898.00	1,431.50			16,524.48	1,060.84	15,463.64
VI.....		2,388.14	1,951.00	152.00	6,986.25	728.00		37,848.42	745.36	37,103.06
VII.....		1,228.86	2,305.49			4,495.71		8,785.28		8,785.28
VIII.....			9,101.23	1,201.00	1,765.00	4,195.31		20,154.54	153.68	20,000.86
IX.....			4,562.96	1,028.00	256.00	3,242.00		9,088.96	54.00	9,034.96
X.....		1,102.00	2,039.34			7,468.98		11,023.82		11,023.82

B.—MILEAGE OPERATED OVER WATER LINES.

Total mileage operated over water lines.	233.00	161.00	195.00		891.00	3,246.00		10,862.00	1,708.00	9,174.00
Group I.....	233.00				601.00			5,026.00	1,626.00	3,400.00
II.....					290.00			1,208.00	82.00	1,126.00
III.....								1,046.00		1,046.00
X.....		161.00	195.00			3,246.00		3,602.00		3,602.00

C.—MILEAGE OPERATED OVER STAGE LINES.

Total mileage operated over stage lines.		20.00				2,724.00		3,055.00		3,055.00
Group I.....								90.00		90.00
II.....								3.00		3.00
III.....								61.00		61.00
V.....								122.00		122.00
VI.....								35.00		35.00
X.....		20.00				2,724.00		2,744.00		2,744.00

D.—MILEAGE OPERATED OVER ALL LINES.

Total express mileage operated over all lines.	632.23	4,900.00	21,322.00	21,714.00	21,478.50	29,098.00	245.06	a174,534.51	7,632.31	a166,902.20
Group I.....	632.23				841.00			b13,931.23	3,570.90	b10,351.33
II.....					4,529.00	1,548.00	245.06	19,279.78	728.91	18,550.87
III.....			479.00		5,129.75	1,450.00		c22,869.50	1,258.05	c21,611.45
IV.....				6,435.00	540.00			8,525.50	51.57	8,473.93
V.....			687.98	12,898.00	1,431.50			16,646.48	1,060.84	15,585.64
VI.....		2,388.14	1,951.00	152.00	6,986.25	728.00		37,883.42	745.36	37,138.06
VII.....		1,228.86	2,305.49			4,495.71		8,785.28		8,785.28
VIII.....			9,101.23	1,201.00	1,765.00	4,195.31		20,154.54	153.68	20,000.86
IX.....			4,562.96	1,028.00	256.00	3,242.00		9,088.96	54.00	9,034.96
X.....		1,283.00	2,234.34			13,438.98		17,369.82		17,369.82

a Includes 475.18 miles of line in Canada.

b Includes 174.88 miles of line in Canada.

c Includes 300.30 miles of line in Canada.

STATISTICS OF TRANSPORTATION.

TABLE 3.—EQUIPMENT AND FIXTURES OF

PART 1.—BY COMPANIES IN EACH GROUP.

	COMPANIES.	CARS.		OFFICE SAFES.		MESSENGERS' SAFES.	
		Number.	Value.	Number.	Value.	Number.	Value.
1	Total for United States	35	\$86,416.39	7,670	\$582,525.03	6,910	\$125,816.70
2	Group I			312	23,223.68	666	9,809.10
3	Adams Express Company			64	5,537.25	163	2,465.45
4	American Express Company			167	10,280.93	399	5,717.99
5	Dominion Express Company			3	496.00	8	240.00
6	Earle & Prew's Express			13	2,415.00	16	165.00
7	National Express Company			22	1,164.50	9	167.00
8	New England Despatch Express Company			12	600.00	8	80.00
9	New York and Boston Despatch Express Company			15	1,460.00	41	708.75
10	United States Express Company			16	1,270.00	22	265.00
11	Group II	8	22,566.55	915	56,683.12	1,402	22,141.29
12	Adams Express Company			257	16,122.00	558	7,877.00
13	American Express Company			317	19,579.46	372	5,330.80
14	Camden and Atlantic Express Company					4	100.00
15	Long Island Express Company			6	420.00	15	150.00
16	National Express Company			39	2,945.50	56	1,130.00
17	United States Express Company			209	11,631.00	325	6,308.00
18	Wells, Fargo & Co.'s Express	8	22,566.55	83	4,785.16	65	1,070.40
19	West Jersey Express Company			4	1,200.00	7	175.00
20	Group III	9	25,387.36	935	62,105.86	998	15,783.11
21	Adams Express Company			201	14,039.04	220	3,185.79
22	American Express Company			374	18,060.74	442	6,261.66
23	Cincinnati, Georgetown and Portsmouth Express Company					1	15.00
24	Pacific Express Company			40	4,872.78	11	306.55
25	United States Express Company			227	19,750.00	251	4,810.00
26	Wells, Fargo & Co.'s Express	9	25,387.36	93	5,383.30	73	1,294.20
27	Group IV			267	10,491.00	282	4,218.00
28	Adams Express Company			85	2,980.00	53	595.00
29	Southern Express Company			138	5,796.00	194	2,813.00
30	United States Express Company			44	1,715.00	35	810.00
31	Group V			792	42,487.85	550	8,944.02
32	Adams Express Company			101	5,622.50	82	1,116.00
33	Pacific Express Company			66	7,582.41	19	477.02
34	Southern Express Company			565	26,307.94	386	5,866.00
35	United States Express Company			60	2,975.00	63	1,485.00
36	Group VI	8	18,462.48	1,888	126,957.01	1,311	19,997.23
37	Adams Express Company			233	11,399.37	253	2,411.90
38	American Express Company			918	44,368.36	744	10,521.14
39	Pacific Express Company	5	10,000.00	384	45,153.33	116	2,830.79
40	Southern Express Company			5	222.50	4	72.00
41	United States Express Company			317	24,019.00	169	3,760.00
42	Wells, Fargo & Co.'s Express	3	8,462.48	31	1,794.45	25	401.40
43	Group VII			295	28,917.19	161	4,106.03
44	American Express Company			4	534.20	10	142.50
45	Pacific Express Company			182	20,033.63	51	1,289.47
46	Wells, Fargo & Co.'s Express			109	8,349.36	100	2,674.06
47	Group VIII	10	20,000.00	1,264	131,470.59	679	22,211.89
48	Adams Express Company			98	6,059.26	85	966.46
49	Denver and Rio Grande Express			38	7,600.00	145	10,625.00
50	Pacific Express Company	10	20,000.00	840	96,590.00	243	6,076.67
51	Southern Express Company			73	3,890.41	48	725.50
52	United States Express Company			111	9,421.00	63	1,285.00
53	Wells, Fargo & Co.'s Express			104	7,909.92	95	2,533.32
54	Group IX			523	53,758.66	231	5,390.51
55	Pacific Express Company			391	44,902.44	113	2,824.89
56	Southern Express Company			47	2,643.50	43	616.00
57	United States Express Company			10	500.00	6	120.00
58	Wells, Fargo & Co.'s Express			75	5,712.72	69	1,829.62
59	Group X			251	32,978.07	449	9,957.61
60	Pacific Express Company			76	8,565.07	19	519.61
61	Wells, Fargo & Co.'s Express			175	24,413.00	430	9,438.00
62	Not divided by groups (Northern Pacific Express Company)			228	13,452.00	181	3,258.00

EXPRESS COMPANIES.

523

EXPRESS COMPANIES ON JUNE 30, 1890.

PART 1.—BY COMPANIES IN EACH GROUP.

MESSENGERS' TRUNKS.		HORSES.		WAGONS.		SLEIGHS.		Value of office fixtures.	Value of stable equipment, in- cluding har- ness.	Total value of equipment and fixtures.	
Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.				
5,690	\$62,624.15	8,291	\$1,464,476.30	6,008	\$1,192,286.44	1,439	\$65,595.91	\$1,146,469.72	\$347,834.48	\$5,074,045.12	1
1,201	11,904.06	1,093	208,326.00	855	155,849.50	436	27,075.09	152,847.88	45,850.22	635,495.13	2
350	3,589.00	255	44,625.00	243	35,487.50	147	10,602.50	54,642.14	14,986.87	171,935.71	3
623	4,882.91	447	91,781.00	315	65,822.50	161	8,158.19	54,853.90	16,273.00	257,770.33	4
8	160.00									896.00	5
37	512.00	85	14,875.00	54	10,315.00	37	3,875.00	4,700.00	4,335.25	41,252.25	6
5	28.50	28	5,705.00	29	4,712.50	18	684.00	10,067.13	1,144.25	23,672.88	7
25	100.00	40	7,000.00	42	7,500.00	17	1,000.00	3,000.00	2,500.00	21,780.00	8
51	1,611.65	139	28,100.00	98	19,850.00	34	2,393.00	22,834.71	4,294.50	81,252.61	9
102	1,020.00	99	16,240.00	74	12,162.00	22	963.00	2,090.00	2,325.35	36,935.35	10
1,417	14,477.39	3,068	612,307.50	2,143	416,013.50	598	27,163.97	292,029.81	125,509.47	1,588,982.51	11
537	7,895.00	1,044	222,280.00	759	137,297.80	90	2,527.00	123,980.75	45,845.90	563,825.45	12
581	4,553.59	731	150,095.00	513	107,202.50	308	15,536.81	104,466.18	30,991.00	437,755.34	13
4	16.00	6	800.00	4	800.00			50.00	250.00	2,016.00	14
6	36.00	87	17,400.00	60	15,000.00	2	50.00	900.00	2,856.00	36,812.00	15
42	395.00	70	11,335.00	65	9,150.00	48	2,308.16	14,780.53	2,427.30	44,471.49	16
78	593.00	945	176,857.50	613	119,532.00	128	5,936.00	21,045.75	34,986.07	376,889.32	17
154	928.80	165	30,940.00	116	24,781.20	22	806.00	26,681.60	7,893.20	120,452.91	18
15	60.00	20	2,600.00	13	2,250.00			125.00	350.00	6,760.00	19
660	7,991.60	955	152,726.53	753	136,014.55	121	3,193.57	140,526.68	32,564.32	575,293.58	20
214	4,346.70	239	36,800.00	193	39,106.20			44,715.27	7,892.95	150,085.86	21
206	1,590.00	286	46,669.00	214	41,420.00	69	1,639.82	49,421.17	9,904.80	174,767.19	22
		17	2,255.03	8	2,193.50			1,344.94	1,240.68	15.00	23
67	1,210.00	228	32,195.00	207	25,416.00	28	647.00	15,028.50	4,637.10	12,222.48	24
173	1,044.90	185	34,807.50	131	27,878.85	24	906.75	30,016.80	8,879.79	103,693.60	25
										135,509.45	26
186	2,102.00	189	22,760.00	143	17,394.00			17,854.50	3,331.85	78,151.35	27
19	220.00	71	8,120.00	48	6,390.00			9,690.00	1,110.00	29,105.00	28
150	1,710.00	98	12,250.00	72	8,064.00			6,420.00	1,850.00	38,903.00	29
17	172.00	20	2,390.00	23	2,940.00			1,744.50	371.85	10,143.35	30
492	6,977.50	396	61,175.79	270	48,757.30			31,390.93	10,534.50	210,267.98	31
99	1,346.00	85	12,825.00	39	9,355.00			6,489.00	2,119.80	38,873.30	32
		18	3,508.99	8	3,413.25			2,092.83	1,944.59	19,019.09	33
342	4,616.50	250	39,776.80	184	32,084.05			19,959.10	5,681.40	134,291.79	34
51	1,015.00	43	5,065.00	39	3,905.00			2,850.00	788.80	18,083.80	35
680	7,244.20	1,335	206,996.84	952	186,533.50	237	5,780.68	207,957.47	51,764.62	831,694.03	36
191	3,288.90	171	28,311.00	139	29,769.30			35,309.66	5,846.48	116,336.61	37
347	2,336.00	635	103,619.00	477	92,325.00	169	4,028.43	121,409.02	24,332.33	402,939.28	38
		173	19,789.34	68	19,522.25			12,838.54	11,425.01	121,559.26	39
4	56.00	2	250.00	2	208.00			88.10	61.00	1,017.60	40
81	1,215.00	292	43,425.00	222	35,356.00	60	1,450.00	28,306.55	7,139.85	144,671.40	41
57	348.30	62	11,602.50	44	9,292.95	8	302.25	10,005.60	2,959.95	45,169.88	42
23	225.56	151	24,648.26	104	29,772.22	5	290.00	42,272.89	8,672.79	138,904.94	43
7	50.00	4	790.00	3	755.00	3	180.00	664.30	271.59	3,387.59	44
		72	9,898.96	45	12,217.42			16,211.27	4,702.46	64,353.21	45
16	175.56	75	13,959.30	56	16,799.80	2	110.00	25,397.32	3,098.74	71,164.14	46
125	1,834.72	578	85,391.17	354	85,348.60	5	140.00	78,891.37	35,517.15	460,805.49	47
34	426.40	83	15,259.00	74	15,907.50			16,357.40	3,777.62	58,753.58	48
26	520.00	51	10,200.00	35	7,875.00	3	30.00	6,000.00	3,000.00	45,830.00	49
		358	44,700.07	175	43,480.50			26,659.56	24,771.67	262,278.47	50
46	662.00	9	1,547.50	11	1,787.00			2,259.77	371.50	11,243.68	51
4	60.00	5	460.00	6	393.00			3,554.00	92.40	15,255.40	52
15	168.32	72	13,224.60	53	15,915.60	2	110.00	24,060.64	3,503.96	67,424.36	53
59	731.12	237	33,118.55	138	40,827.52			35,229.83	14,728.61	183,784.80	54
		166	20,779.95	75	25,675.42			12,393.55	11,515.73	118,091.98	55
42	491.00	17	2,637.50	24	3,607.50			5,409.32	657.00	16,081.82	56
6	120.00	2	150.00	1	50.00			50.00	25.00	1,015.00	57
11	120.12	52	9,551.10	38	11,494.60			17,376.96	2,530.88	48,016.00	58
750	7,875.00	194	38,215.66	232	58,623.75	1	20.00	95,677.60	12,261.86	255,609.55	59
		28	4,442.66	11	4,157.75			2,228.40	2,787.06	22,700.55	60
750	7,875.00	166	33,773.00	221	54,406.00	1	20.00	93,449.20	9,474.80	232,900.00	61
97	1,261.00	95	18,810.00	64	17,152.00	36	1,332.00	51,790.76	7,000.00	114,055.76	62

STATISTICS OF TRANSPORTATION.

TABLE 3.—EQUIPMENT AND FIXTURES OF

PART 2.—BY COMPANY TOTALS.

	COMPANIES AND GROUPS.	CARS.		OFFICE SAFES.		MESSENGERS' SAFES.	
		Number.	Value.	Number.	Value.	Number.	Value.
1	Total	35	\$86,416.39	7,670	\$582,525.03	6,910	\$125,816.70
2	Adams Express Company			1,039	61,759.42	1,414	18,617.45
3	American Express Company			1,780	92,823.69	1,967	27,974.00
4	Camden and Atlantic Express Company					4	100.00
5	Cincinnati, Georgetown and Portsmouth Express Company					1	15.00
6	Denver and Rio Grande Express			38	7,600.00	145	10,625.00
7	Dominion Express Company			3	496.00	8	240.00
8	Earle & Prew's Express			13	2,415.00	16	165.00
9	Long Island Express Company			6	420.00	15	150.00
10	National Express Company			61	4,110.00	65	1,297.00
11	New England Despatch Express Company			12	600.00	8	80.00
12	New York and Boston Despatch Express Company			15	1,450.00	41	708.75
13	Northern Pacific Express Company			228	13,452.00	181	3,256.00
14	Pacific Express Company	15	30,000.00	1,979	227,699.66	572	14,325.00
15	Southern Express Company			828	38,860.35	675	10,092.50
16	United States Express Company			994	71,281.00	934	18,843.00
17	Wells, Fargo & Co.'s Express	20	56,416.39	670	58,347.91	857	19,151.00
18	West Jersey Express Company			4	1,200.00	7	175.00

PART 3.—BY GROUP TOTALS.

1	Total	35	86,416.39	7,670	582,525.03	6,910	125,816.70
2	Group I			312	23,223.68	666	9,809.10
3	II	8	22,566.55	915	56,683.12	1,402	22,141.30
4	III	9	25,387.36	935	62,105.86	998	15,783.11
5	IV			267	10,491.00	282	4,218.00
6	V			792	42,487.85	550	8,944.02
7	VI	8	18,462.48	1,868	128,957.01	1,311	19,997.23
8	VII			295	28,917.19	161	4,106.05
9	VIII	10	20,000.00	1,264	131,470.59	679	22,211.89
10	IX			523	53,758.66	231	5,390.51
11	X			251	32,978.07	449	9,937.61
12	Not divided by groups (Northern Pacific Express Company)			228	13,452.00	181	3,256.00

EXPRESS COMPANIES.

525

EXPRESS COMPANIES ON JUNE 30, 1890—Continued.

PART 2.—BY COMPANY TOTALS.

MESSENGERS' TRUNKS.		HORSES.		WAGONS.		SLEIGHS.		Value of office fixtures.	Value of stable equipment, in- cluding har- ness.	Total value of equipment and fixtures.	
Number.	Value.	Number.	Value.	Number.	Value.	Number.	Value.				
5,690	\$62,624.15	8,291	\$1,464,476.30	6,008	\$1,192,286.44	1,439	\$65,595.91	\$1,146,469.72	\$347,834.48	\$5,074,045.12	1
1,444	21,112.00	1,948	368,220.00	1,495	273,313.30	237	13,139.50	291,184.22	81,579.62	1,128,915.51	2
1,764	13,212.50	2,103	392,954.00	1,522	307,525.00	710	29,543.25	330,814.57	81,772.72	1,276,619.73	3
4	16.00	6	800.00	4	800.00			50.00	250.00	2,016.00	4
26	520.00	51	10,200.00	35	7,875.00	3	30.00	6,000.00	3,000.00	45,850.00	5
8	160.00									896.00	6
37	512.00	85	14,875.00	54	10,315.00	37	3,875.00	4,760.00	4,335.25	41,252.25	7
6	36.00	87	17,400.00	60	15,000.00	2	50.00	900.00	2,856.00	38,812.00	8
47	423.50	98	17,040.00	94	13,862.50	66	2,992.16	24,847.66	8,571.55	68,144.37	9
25	100.00	40	7,000.00	42	7,500.00	17	1,000.00	3,000.00	2,500.00	21,780.00	10
51	1,611.65	139	28,100.00	98	19,850.00	34	2,393.00	22,834.71	4,294.50	81,252.61	11
97	1,261.00	95	18,810.00	64	17,152.00	36	1,332.00	51,790.76	7,000.00	114,055.76	12
		832	105,375.00	390	110,660.09			73,769.09	58,396.20	620,225.04	13
584	7,535.50	376	56,461.80	293	45,810.55			34,136.29	8,620.90	201,517.89	14
406	5,405.00	1,614	276,782.50	1,185	199,744.00	238	8,996.00	75,269.30	50,306.42	706,687.22	15
1,176	10,659.00	777	147,858.00	659	160,629.00	59	2,255.00	226,988.12	38,941.32	721,245.74	16
15	60.00	20	2,600.00	13	2,250.00			125.00	350.00	6,760.00	17
											18

PART 3.—BY GROUP TOTALS.

5,690	62,624.15	8,291	1,464,476.30	6,008	1,192,286.44	1,439	65,595.91	1,146,469.72	347,834.48	5,074,045.12	1
1,201	11,904.06	1,093	208,326.00	855	155,849.50	436	27,675.69	132,847.88	45,859.22	635,495.13	2
1,417	14,477.39	3,068	612,307.50	2,143	416,013.50	598	27,163.97	292,029.81	125,599.47	1,588,982.51	3
660	7,991.00	955	152,726.53	753	136,014.55	121	3,193.57	140,526.68	32,564.32	576,293.58	4
186	2,102.00	189	22,760.50	143	17,394.00			17,854.50	3,331.85	78,161.35	5
492	6,977.50	396	61,175.79	270	48,757.30			31,390.93	10,534.59	210,267.98	6
680	7,244.20	1,335	206,996.84	952	186,533.50	237	5,780.68	207,957.47	51,764.62	831,694.03	7
23	225.56	151	24,648.26	104	29,772.22	5	290.00	42,272.89	8,672.79	138,904.94	8
125	1,834.72	578	85,391.17	354	85,348.60	5	140.00	78,891.37	35,517.15	460,805.49	9
59	731.12	237	33,118.55	138	40,827.52			35,229.83	14,728.61	183,784.80	10
750	7,875.00	194	38,215.66	232	58,623.75	1	20.00	95,677.60	12,261.86	255,669.55	11
97	1,261.00	95	18,810.00	64	17,152.00	36	1,332.00	51,790.76	7,000.00	114,055.76	12

STATISTICS OF TRANSPORTATION.

TABLE 4.—EMPLOYÉS OF EXPRESS COMPANIES ON JUNE 30, 1890.

PART 1.—BY COMPANIES IN EACH GROUP.

COMPANIES.	Total.	General officers.	Superintendents and route agents.	General office clerks.	Agents.	Assistants to agents.	Messengers.	Baggage men employed as messengers.	Drivers of wagons.	All other.
Total employes in United States	45,718	86	320	1,377	21,065	7,952	4,130	1,405	4,877	4,877
Group I.....	3,974	10	26	91	1,407	644	487	130	689	689
Adams Express Company.....	957		4	23	320	153	89	21	152	152
American Express Company.....	1,881	3	11	16	777	372	297	43	246	246
Dominion Express Company.....	50		4		18		14	2		
Earle & Prew's Express.....	190	2		30	26		15	11	57	57
National Express Company.....	134		1		46	33	11	3	25	25
New England Despatch Express Company.....	174	2	2	3	52		20	10	75	75
New York and Boston Despatch Express Company.....	351	3	2	16	106	47	18	22	79	79
United States Express Company.....	237		2	3	62	39	13	18	55	55
Group II.....	11,542	49	52	611	3,803	1,918	830	601	1,711	1,711
Adams Express Company.....	4,044	9	12	123	1,356	516	273	225	598	598
American Express Company.....	3,003	25	17	252	931	719	263	34	401	401
Camden and Atlantic Express Company.....	33	1		1	19			6		
Long Island Express Company.....	82		1				15		66	66
National Express Company.....	453	7	5	26	169	62	59	10	59	59
United States Express Company.....	2,922	4	12	183	969	367	169	233	412	412
Wells, Fargo & Co.'s Express.....	907	2	5	25	292	254	31	78	155	155
West Jersey Express Company.....	98	1		1	67			15	14	14
Group III.....	6,071	1	39	107	3,320	730	576	193	571	571
Adams Express Company.....	1,701		10	73	1,011	175	137	64	151	151
American Express Company.....	2,225	1	17	16	1,203	209	297	39	197	197
Cincinnati, Georgetown and Portsmouth Express Company.....	4						1			
Pacific Express Company.....	114		1		47	51		1	9	9
United States Express Company.....	1,362		6	14	729	128	104	37	164	164
Wells, Fargo & Co.'s Express.....	665		5	4	330	167	32	52	50	50
Group IV.....	1,685		15	24	1,197	94	127	64	80	80
Adams Express Company.....	365		1		269	25	24	6	24	24
Southern Express Company.....	1,061		12	24	735	55	96	44	40	40
United States Express Company.....	259		2		193	14	7	14	16	16
Group V.....	3,241		33	76	1,968	346	290	115	198	198
Adams Express Company.....	447		3	5	275	44	40	9	45	45
Pacific Express Company.....	180		2		74	79	8	2	15	15
Southern Express Company.....	2,355		24	70	1,473	201	210	103	107	107
United States Express Company.....	259		4	1	146	22	32	1	31	31
Group VI.....	8,891	7	59	88	4,618	1,385	891	145	836	836
Adams Express Company.....	1,017		5	10	582	90	111	52	92	92
American Express Company.....	4,836	7	32	60	2,575	571	547	68	439	439
Pacific Express Company.....	1,052		6		435	471	44	10	86	86
Southern Express Company.....	38			1	22	6		1	2	2
United States Express Company.....	1,671		14	15	898	168	163	9	177	177
Wells, Fargo & Co.'s Express.....	277		2	2	106	79	22	5	40	40
Group VII.....	1,395	5	17	127	594	389	102	24	113	113
American Express Company.....	28		1		13	3	7		3	3
Pacific Express Company.....	628	4	9	110	201	213	21	5	65	65
Wells, Fargo & Co.'s Express.....	739	1	7	17	380	173	74	19	45	45
Group VIII.....	4,347	1	38	47	2,075	1,297	354	71	344	344
Adams Express Company.....	531		3	5	279	58	55	9	63	63
Denver and Rio Grande Express.....	264	1	5	12	137	30	39	11	29	29
Pacific Express Company.....	2,277		16	15	937	1,007	95	23	184	184
Southern Express Company.....	184		4	10	124	6	16	12	6	6
United States Express Company.....	347		3		247	4	56	1	8	8
Wells, Fargo & Co.'s Express.....	744		7	5	351	192	93	15	54	54
Group IX.....	1,705		15	7	782	592	112	35	137	137
Pacific Express Company.....	1,051		6		436	468	44	11	86	86
Southern Express Company.....	116		3	4	73	8	7	10	8	8
United States Express Company.....	22				18	1	2		1	1
Wells, Fargo & Co.'s Express.....	516		6	3	255	115	59	14	42	42
Group X.....	2,034	7	14	166	889	557	230	27	108	108
Pacific Express Company.....	192		3		79	85	8	2	15	15
Wells, Fargo & Co.'s Express.....	1,842	7	11	166	810	472	222	25	93	93
Not divided by groups (Northern Pacific Express Company).....	833	6	12	33	412		131		90	90

EXPRESS COMPANIES.

527

TABLE 4.—EMPLOYÉS OF EXPRESS COMPANIES ON JUNE 30, 1890—Continued.

PART 2.—BY COMPANY TOTALS.

COMPANIES AND GROUPS.	Total.	General officers.	Superintendents and route agents.	General office clerks.	Agents.	Assistants to agents.	Messengers.	Baggage men employed as messengers.	Drivers of wagons.	All others.
Total employée in United States	45,718	86	320	1,377	21,065	7,952	4,130	1,405	4,877	4,506
Adams Express Company	9,062	9	38	239	4,062	1,061	739	386	1,125	1,373
American Express Company	11,973	36	78	344	5,499	1,874	1,431	184	1,286	1,241
Camden and Atlantic Express Company	33	1	.....	1	19	.....	.....	6	.....	.....
Cincinnati, Georgetown and Portsmouth Express Company	4	.....	.....	.....	.....	.....	1	.....	.....	8
Denver and Rio Grande Express	264	1	6	12	137	30	39	11	29	.....
Dominion Express Company	50	.....	4	.....	18	.....	14	2	.....	12
Earle & Prew's Express	190	2	.....	30	26	.....	15	11	57	40
Long Island Express Company	82	.....	1	.....	.....	.....	15	.....	66	.....
National Express Company	587	7	6	26	215	95	70	13	84	71
New England Despatch Express Company	174	2	2	3	52	.....	20	10	75	10
New York and Boston Despatch Express Company	251	3	2	16	106	47	18	22	79	58
Northern Pacific Express Company	833	6	12	33	412	.....	131	.....	90	149
Pacific Express Company	5,494	4	43	125	2,209	2,374	225	54	460	.....
Southern Express Company	3,754	.....	43	109	2,427	276	333	170	163	233
United States Express Company	7,079	4	43	216	3,262	743	546	313	864	1,068
Wells, Fargo & Co.'s Express	5,690	10	43	222	2,524	1,452	538	208	479	219
West Jersey Express Company	98	1	.....	1	67	.....	.....	15	14	.....

PART 3.—BY GROUP TOTALS.

Total employée in United States	45,718	86	320	1,377	21,065	7,952	4,130	1,405	4,877	4,506
Group I	3,974	10	26	91	1,407	644	487	130	689	490
II	11,542	49	52	611	3,803	1,918	830	601	1,711	1,967
III	6,071	1	39	107	3,320	730	576	193	571	534
IV	1,685	.....	15	24	1,197	94	127	64	80	84
V	3,241	.....	33	76	1,968	346	290	115	198	215
VI	8,891	7	59	88	4,618	1,985	891	145	836	862
VII	1,395	5	17	127	594	389	102	24	113	24
VIII	4,347	1	38	47	2,075	1,297	354	71	344	120
IX	1,705	.....	15	7	782	592	112	35	137	25
X	2,034	7	14	166	889	557	230	27	108	36
Not divided by groups (Northern Pacific Express Company) ..	833	6	12	33	412	.....	131	.....	90	149

STATISTICS OF TRANSPORTATION.

TABLE 5.—EXPENDITURES OF EXPRESS COMPANIES FOR THE YEAR ENDING JUNE 30, 1890.

PART 1.—BY COMPANIES IN EACH GROUP.

COMPANIES.	Total. (a)	OPERATING EXPENSES.								Taxes.
		Paid to railways.	Paid to water lines.	Paid to stage lines.	Paid for salaries and wages.	Paid for local ex- penses and repairs.	Paid for general expenses.	Paid for other ex- penses of operation.	Total operating expenses.	
Total expenditures for United States.	\$45,783,123.32	\$19,327,280.49	\$173,222.13	\$80,679.38	\$16,176,097.55	\$3,580,045.83	\$826,715.50	\$2,289,663.82	\$42,413,704.70	\$171,370.31
Group I	4,328,704.79	1,681,423.73	105,439.27	1,620.61	1,758,528.52	571,751.50	71,114.98	114,331.31	4,304,239.92	24,494.87
Adams Express Company.	1,387,520.51	581,196.30	54,213.10		509,308.48	189,304.43	12,580.82	31,074.14	1,377,677.27	9,843.24
American Express Company.	1,886,334.23	761,866.04	10,214.30	1,620.61	806,866.26	227,917.95	45,594.74	22,650.49	1,876,741.29	9,602.94
Dominion Express Company.	10,986.12	5,940.00			3,648.00	35.44	887.50	472.00	10,982.94	3.18
Earle & Prew's Express.	204,242.69	48,579.50	21,800.00		84,740.83	36,649.80	2,236.40	9,875.66	203,922.19	329.50
National Express Company.	77,803.75	27,180.35	278.69		37,024.62	7,794.60	2,390.43	2,036.72	76,705.50	1,066.25
New England Despatch Express Company.	120,503.02	22,497.16	13,972.63		52,271.00	22,460.71	1,410.92	6,709.00	119,321.42	1,181.60
New York and Boston Despatch Express Company.	406,148.75	123,374.42	4,244.68		176,037.22	84,115.47	3,452.72	12,965.23	404,209.74	1,939.01
United States Express Company.	235,165.72	110,789.06	715.87		88,632.11	3,433.01	2,561.45	28,528.07	234,659.57	506.15
Group II	11,156,744.96	4,396,300.16	20,005.06	770.60	4,606,737.98	1,289,235.83	198,675.90	590,972.73	11,102,707.26	54,037.70
Adams Express Company.	4,670,361.89	1,786,652.34	9,023.16		1,974,215.61	704,463.20	65,396.30	122,131.28	4,661,883.89	8,478.00
American Express Company.	3,128,288.55	1,076,816.26	2,930.69	306.05	1,371,464.68	486,768.64	90,583.05	62,241.04	3,061,110.41	37,178.14
Camden and Atlantic Express Company. (b)	16,696.09	3.46	552.68		11,399.34		54.32	4,698.29	16,096.09	
Long Island Express Company. (c)										
National Express Company.	508,221.54	221,322.76	971.48	473.55	199,940.09	53,173.90	13,666.99	16,718.45	506,267.22	1,954.32
United States Express Company.	2,144,058.00	1,010,035.82	6,527.05		808,116.37	31,301.01	23,354.47	260,108.91	2,139,443.63	4,614.97
Wells, Fargo & Co.'s Express.	642,449.72	299,849.08			208,547.24	13,529.08	5,551.41	113,159.74	640,637.45	1,812.27
West Jersey Express Company. (b)	46,668.57	1,619.54			33,054.65		67.36	11,927.02	46,668.57	
Group III	6,102,306.70	3,142,269.09	14,409.44	1,307.52	2,122,954.34	365,451.38	80,915.17	356,976.02	6,084,382.96	17,923.74
Adams Express Company.	1,673,747.84	859,195.52	6,596.86	878.80	618,324.47	149,413.17	19,110.43	15,439.96	1,668,959.21	4,788.63
American Express Company.	2,018,745.75	1,149,069.39	2,949.51	428.72	634,365.70	169,572.60	36,172.00	17,969.47	2,011,127.39	7,618.36
Cincinnati, Georgetown and Portsmouth Express Company. (b)	1,080.00				1,080.00				1,080.00	
Pacific Express Company.	79,641.29	42,249.92			27,896.94	7,629.51	1,864.92		79,641.29	(d)
United States Express Company.	1,597,743.18	752,713.96	4,863.07		602,177.03	23,324.30	17,402.84	193,823.09	1,594,304.29	3,438.80
Wells, Fargo & Co.'s Express.	731,348.64	338,540.30			239,110.20	15,511.80	6,564.98	129,742.50	729,270.78	2,077.86
Group IV	1,398,226.83	721,066.08	875.11		489,412.43	73,447.91	77,772.87	29,044.24	1,391,618.64	6,008.19
Adams Express Company.	406,454.11	251,394.58			115,938.80	28,594.49	6,727.80	2,120.96	404,776.63	1,677.48
Southern Express Company.	767,355.76	361,690.20	245.64		289,147.44	42,212.34	68,931.35	681.35	762,008.32	4,447.44
United States Express Company.	224,416.96	107,981.30	629.47		84,326.19	2,611.08	2,118.72	26,241.93	223,933.69	483.27
Group V	2,787,908.88	1,391,023.99	718.50	4,340.53	1,096,684.67	176,568.91	53,664.62	47,069.74	2,770,070.96	17,837.68
Adams Express Company.	452,248.00	272,934.44		4,340.53	125,894.48	35,135.39	4,523.90	6,914.03	449,742.77	2,505.23
Pacific Express Company.	123,815.80	65,633.03			43,409.73	11,871.08	2,901.96	(d)	123,815.80	(d)
Southern Express Company.	1,959,441.75	933,521.20			832,235.28	125,877.00	43,488.96	9,529.99	1,944,652.43	14,789.33
United States Express Company.	252,403.33	118,935.32	718.50		95,145.18	3,685.44	2,749.80	30,625.72	251,859.96	543.37
Group VI	8,149,814.73	3,947,871.78	7,053.22	1,997.38	3,052,745.49	611,189.24	150,888.04	350,957.89	8,122,703.04	27,111.60
Adams Express Company.	1,040,486.24	552,046.70		283.05	348,503.31	106,638.07	19,235.73	10,575.57	1,037,282.52	3,203.72
American Express Company.	3,985,608.25	1,877,301.80	652.50	1,714.33	1,561,379.13	392,820.32	88,872.41	44,149.90	3,966,890.39	18,717.86
Pacific Express Company.	750,728.46	398,407.98			261,104.01	74,120.61	17,095.86	(d)	750,728.46	(d)
Southern Express Company.	37,471.59	20,714.09			13,775.16	2,016.60	771.24	186.24	37,463.33	8.26
United States Express Company.	2,102,658.57	990,584.60	6,400.72		792,475.40	30,695.18	22,902.44	255,074.55	2,098,132.89	4,525.66
Wells, Fargo & Co.'s Express.	232,861.02	108,816.52			75,508.48	4,898.46	2,010.36	40,971.63	232,205.45	656.17
Group VII	1,295,550.82	644,832.15			432,291.28	52,840.72	15,822.55	147,390.05	1,293,176.75	2,374.07
American Express Company.	33,717.90	13,191.94			14,117.34	5,204.74	1,101.59	87.29	33,702.90	15.00
Pacific Express Company.	428,958.94	244,736.56			146,702.97	30,024.85	7,494.56	(d)	428,958.94	(d)
Wells, Fargo & Co.'s Express.	832,873.98	386,903.65			271,470.97	17,611.13	7,226.40	147,302.76	830,514.91	2,350.07
Group VIII	3,422,191.11	1,638,630.72	993.79		1,252,773.53	275,757.37	67,358.68	182,845.90	3,418,359.99	3,631.12
Adams Express Company.	451,773.86	200,843.43			176,926.06	59,884.23	4,875.40	8,712.34	451,241.46	532.40
Denver and Rio Grande Express.	152,188.13				106,071.34	35,849.07	9,638.35	629.37	152,188.13	(f)
Pacific Express Company.	1,566,925.18	837,496.03			541,226.46	151,235.36	36,967.33	(d)	1,566,925.18	(d)
Southern Express Company.	160,928.16	83,768.18			61,463.80	8,161.20	5,813.16	1,230.48	160,456.82	471.34
United States Express Company.	325,985.38	153,801.33	993.79		122,562.22	4,765.63	3,555.89	39,603.67	325,282.73	702.65
Wells, Fargo & Co.'s Express.	764,390.40	362,721.75			244,503.65	15,861.68	6,508.55	132,670.04	762,265.67	2,124.73

a The total expenditures, \$45,783,123.32, include dividends.

b Partial report, the express company being a department of the railroad whose name it bears.

c Returns included in report of railway company of which the express company is a department.

d None reported.

e Included in the operating expenses of the Denver and Rio Grande railroad.

f Included in those of the Denver and Rio Grande railroad.

EXPRESS COMPANIES.

529

TABLE 5.—EXPENDITURES OF EXPRESS COMPANIES FOR THE YEAR ENDING JUNE 30, 1890—Continued.

PART 1.—BY COMPANIES IN EACH GROUP—Continued.

COMPANIES.	Total	OPERATING EXPENSES.							Taxes.	
		Paid to railways.	Paid to water lines.	Paid to stage lines.	Paid for salaries and wages.	Paid for local expenses and repairs.	Paid for general expenses.	Paid for other expenses of operation.		Total operating expenses.
Group IX.....	\$1,364,034.92	\$639,814.21	\$69.48		\$499,891.06	\$94,916.17	\$24,772.90	\$101,816.20	\$1,361,280.02	\$2,754.90
Pacific Express Company.....	669,560.52	325,000.67			257,069.02	70,305.64	17,185.19	(a)	669,560.52	(a)
Southern Express Company.....	115,144.82	42,900.83			54,437.04	12,614.28	2,553.36	1,495.80	114,001.31	1,143.51
United States Express Company.....	22,824.88	10,753.05	69.48		8,602.52	333.20	248.61	2,768.90	22,775.76	49.12
Wells, Fargo & Co.'s Express.....	556,504.70	261,159.66			179,782.48	11,663.05	4,785.74	97,551.50	554,942.43	1,562.27
Group X.....	1,785,199.21	720,925.28	21,009.41	\$50,100.71	606,084.67	48,886.80	19,046.12	314,115.86	1,780,168.85	5,030.36
Pacific Express Company.....	106,861.56	60,771.70	3,462.77	472.67	27,186.31	11,331.94	3,636.17	(a)	106,861.56	(a)
Wells, Fargo & Co.'s Express.....	1,678,337.65	660,153.58	17,546.64	49,628.04	578,898.36	37,554.86	15,409.95	314,115.86	1,673,307.29	5,030.36
Not divided by groups (Northern Pacific Express Company).	794,392.06	403,023.30	2,648.85	533.03	257,993.56		66,683.67	54,143.88	785,026.31	9,365.75
Dividends as reported by companies in Part 2 of this table.	3,198,048.31									

a None reported.

PART 2.—BY COMPANY TOTALS. (a)

COMPANIES.	Total expenditures.	OPERATING EXPENSES.				
		Paid to railways.	Paid to water lines.	Paid to stage lines.	Paid for salaries and wages.	Paid for local expenses and repairs.
Total expenditures for United States.....	\$45,783,123.32	\$19,327,280.40	\$173,222.13	\$60,679.38	\$16,176,097.55	\$3,560,045.83
Adams Express Company.....	11,042,592.45	4,504,263.40	60,833.12	5,502.38	3,869,111.21	1,273,432.98
American Express Company.....	12,132,694.68	4,878,846.33	16,747.00	4,069.71	4,384,193.11	1,282,284.25
Camden and Atlantic Express Company.....	16,696.09	3.46	552.68		11,399.34	
Cincinnati, Georgetown and Portsmouth Express Company.....	1,080.00				1,080.00	
Denver and Rio Grande Express.....	152,188.13				106,071.34	35,849.07
Dominion Express Company.....	10,986.12	5,940.00			3,648.00	35.44
Earle & Prew's Express.....	228,604.66	48,570.50	21,800.00		84,740.83	36,689.80
Long Island Express Company.....						
National Express Company.....	623,225.29	248,503.11	1,250.17	473.55	236,964.71	60,968.59
New England Despatch Express Company.....	120,503.02	22,497.16	13,972.63		52,271.00	22,460.71
New York and Boston Despatch Express Company.....	413,506.60	123,374.42	4,344.68		176,037.22	84,115.47
Northern Pacific Express Company.....	933,520.55	403,023.30	2,648.85	533.03	257,993.56	
Pacific Express Company.....	3,726,491.75	1,974,295.89	3,462.77	472.67	1,304,595.44	356,518.99
Southern Express Company.....	3,040,342.08	1,442,594.50	245.64		1,251,078.72	190,881.42
United States Express Company.....	7,355,256.62	3,255,594.44	20,917.95		2,602,037.02	100,179.05
Wells, Fargo & Co.'s Express.....	5,938,706.71	2,418,145.44	17,546.04	49,628.04	1,797,821.38	116,630.06
West Jersey Express Company.....	46,668.57	1,619.54			33,054.65	

COMPANIES.	OPERATING EXPENSES—continued.			Taxes.	DIVIDENDS.	
	Paid for general expenses.	Paid for other expenses of operation.	Total operating expenses.		Amount.	Rate per cent.
Total expenditures for United States.....	\$826,715.50	\$2,289,663.82	\$42,413,704.70	\$171,370.31	\$3,198,048.31	
Adams Express Company.....	132,452.38	196,968.28	10,051,563.75	31,028.70	960,000.00	8.00
American Express Company.....	262,321.79	147,098.19	10,979,562.38	73,132.30	1,080,000.00	6.00
Camden and Atlantic Express Company.....	54.32	4,666.20	16,696.09			
Cincinnati, Georgetown and Portsmouth Express Company.....		1,080.00				
Denver and Rio Grande Express.....	9,638.35	620.37	152,188.13			
Dominion Express Company.....	887.50	472.00	10,982.94	3.18		
Earle & Prew's Express.....	2,236.40	9,875.66	203,922.19	320.50	24,361.97	
Long Island Express Company.....						
National Express Company.....	16,057.42	18,755.17	582,972.72	3,052.57	37,200.00	8.00
New England Despatch Express Company.....	1,410.92	6,709.00	119,321.42	61,181.60		
New York and Boston Despatch Express Company.....	3,452.72	12,985.23	404,209.74	1,939.01	7,357.85	
Northern Pacific Express Company.....	66,683.67	54,143.88	785,026.31	69,365.75	139,128.49	
Pacific Express Company.....	87,145.90		3,726,491.75			
Southern Express Company.....	121,558.07	13,123.86	3,019,482.21	20,856.87		
United States Express Company.....	74,889.22	836,774.84	6,890,392.52	14,864.10	450,000.00	4.50
Wells, Fargo & Co.'s Express.....	47,857.39	975,515.03	5,423,143.98	15,622.73	540,000.00	8.00
West Jersey Express Company.....	67.36	11,927.02	46,668.57			

a Totals given are for 16 companies only, 4 of which are partial reports, namely, the 3 companies shown in Part 1 as being departments of the railroads whose names they bear, and the Denver and Rio Grande Express.

b Includes interest payments, \$800.

c Represents deductions from income.

STATISTICS OF TRANSPORTATION.

TABLE 5.—EXPENDITURES OF EXPRESS COMPANIES FOR THE YEAR ENDING JUNE 30, 1890—Continued.

PART 3.—BY GROUP TOTALS. (a)

GROUPS.		Total expendi- tures.	OPERATING EXPENSES.				
			Paid to rail- ways.	Paid to water lines.	Paid to stage lines.	Paid for salaries and wages.	Paid for local expenses and repairs.
Total expenditures for United States		\$45,783,123.32	\$19,327,280.49	\$173,222.13	\$60,679.38	\$16,176,097.55	\$3,560,045.82
Group	I.....	4,328,704.79	1,681,423.73	105,439.27	1,620.61	1,758,528.52	571,751.50
	II.....	11,156,744.96	4,396,300.16	20,005.06	779.60	4,606,737.98	1,289,235.83
	III.....	6,102,306.70	3,142,369.09	14,409.44	1,307.52	2,122,954.34	365,451.38
	IV.....	1,398,226.83	721,066.08	875.11		489,412.43	73,447.91
	V.....	2,787,908.88	1,391,023.99	718.50	4,340.53	1,096,684.67	176,508.91
	VI.....	8,149,814.73	3,947,871.78	7,053.22	1,097.38	3,052,745.49	611,199.24
	VII.....	1,295,550.82	644,832.15			432,291.28	52,840.72
	VIII.....	3,422,191.11	1,638,630.72	993.79		1,252,773.53	275,757.37
	IX.....	1,364,034.92	639,814.21	69.48		499,801.06	94,916.17
	X.....	1,785,199.21	720,925.28	21,009.41	50,100.71	606,084.67	48,898.89
Not divided by groups (Northern Pacific Express Company)		794,392.06	403,023.30	2,648.85	533.03	257,993.58	
Dividends as reported by companies in Part 2 of this table		3,198,048.31					

GROUPS.		OPERATING EXPENSES—continued.			Taxes.	DIVIDENDS.	
		Paid for gen- eral expenses.	Paid for other expenses of operation.	Total operating expenses.		Amount.	Rate per cent.
Total expenditures for United States		\$826,715.50	\$2,289,663.82	\$42,413,704.70	\$171,370.31	\$3,198,048.31	
Group	I.....	71,114.98	114,331.31	4,304,209.92	24,494.87		
	II.....	198,675.90	590,972.73	11,102,707.26	54,037.70		
	III.....	80,915.17	356,978.02	6,084,382.06	17,923.74		
	IV.....	77,772.87	29,044.24	1,391,618.64	6,608.19		
	V.....	53,664.62	47,069.74	2,770,070.06	17,837.02		
	VI.....	150,886.04	350,057.89	8,122,703.04	27,111.69		
	VII.....	15,822.55	147,390.05	1,293,176.75	2,874.07		
	VIII.....	67,358.68	182,845.90	3,418,359.99	3,831.12		
	IX.....	24,772.90	101,816.20	1,361,280.02	2,754.90		
	X.....	19,046.12	514,115.86	1,780,168.85	5,030.36		
Not divided by groups (Northern Pacific Express Company)		66,683.67	54,143.88	785,026.31	9,365.75		
Dividends as reported by companies in Part 2 of this table						3,198,048.31	

a Totals given are for 16 companies only. 4 of which are partial reports, namely, the 3 companies shown in Part 1 as being departments of the railroads whose names they bear, and the Denver and Rio Grande Express.

EXPRESS COMPANIES.

531

TABLE 6.—BUSINESS DONE BY EXPRESS COMPANIES DURING THE YEAR ENDING JUNE 30, 1890.

PART 1.—BY COMPANIES IN EACH GROUP. (a)

COMPANIES.	Number of freight waybills issued.	Number of packages carried on freight waybills.	Weight of packages carried on freight waybills. (Tons).	Number of money waybills issued.	Number of packages carried on money waybills.	Number of money orders issued.
Total for United States	44,475,528	98,118,430	1,646,273	11,614,676	17,258,682	4,598,567
Group I	4,700,815	11,250,034	235,932	1,039,366	1,895,928	142,383
Adams Express Company	1,353,640	3,106,653	38,833	278,114	486,000	.....
American Express Company	2,627,283	4,072,288	151,795	552,165	784,074	132,650
Dominion Express Company	10,260	21,936	294	10,020	13,836	.....
Earle & Frew's Express	114,000	1,930,000	19,110	48,000	288,000	.....
National Express Company	90,224	174,133	4,325	18,714	30,316	.....
New England Despatch Express Company	25,060	75,000	1,375	3,344	9,500	.....
New York and Boston Despatch Express Company	224,672	1,349,160	13,957	60,977	179,410	.....
United States Express Company	255,736	520,864	6,243	68,032	104,792	9,733
Group II	11,125,713	24,325,360	413,090	2,471,826	3,462,415	422,034
Adams Express Company	4,036,470	9,741,149	122,775	914,401	1,415,904	.....
American Express Company	3,226,996	5,001,843	120,180	680,348	966,094	225,101
Camden and Atlantic Express Company (b) .....	.....	.....	.....	.....	.....	.....
Long Island Express Company	419,072	1,079,879	12,298	37,610	48,243	.....
National Express Company	516,533	996,908	24,044	100,568	177,510	.....
United States Express Company	2,322,676	5,089,720	108,727	588,228	642,152	138,764
Wells, Fargo & Co.'s Express	603,966	2,415,861	25,066	141,671	212,512	58,169
West Jersey Express Company (b) .....	.....	.....	.....	.....	.....	.....
Group III	7,069,230	13,137,149	254,481	1,832,769	2,439,067	785,788
Adams Express Company	2,172,328	3,883,394	58,805	510,183	722,700	.....
American Express Company	2,237,540	3,266,808	113,044	627,100	865,398	511,067
Cincinnati, Georgetown and Portsmouth Express Company (c) .....	.....	.....	500	.....	.....	.....
Pacific Express Company	77,825	143,198	2,092	31,633	43,569	9,331
United States Express Company	1,889,080	3,073,840	51,301	501,420	563,744	219,405
Wells, Fargo & Co.'s Express	692,477	2,769,909	28,739	162,433	243,656	45,985
Group IV	1,177,715	2,855,018	30,800	278,009	419,858	8,793
Adams Express Company	550,427	1,328,338	16,225	124,691	192,096	.....
Southern Express Company	396,620	1,032,996	3,302	68,382	133,526	.....
United States Express Company	230,668	493,684	11,273	84,936	94,236	8,793
Group V	2,629,090	7,307,424	71,765	790,205	1,640,598	63,032
Adams Express Company	630,676	1,365,465	19,602	170,007	240,900	.....
Pacific Express Company	121,102	222,827	3,256	49,224	67,798	13,066
Southern Express Company	1,639,870	4,995,488	38,085	473,286	688,480	.....
United States Express Company	237,436	723,644	10,822	97,688	641,420	49,066
Group VI	9,258,576	14,715,137	348,455	2,688,391	3,765,553	1,598,875
Adams Express Company	1,214,636	2,129,589	33,917	294,862	384,060	.....
American Express Company	4,748,767	6,933,199	184,281	1,329,965	1,835,351	1,245,546
Pacific Express Company	737,848	1,321,641	19,083	297,325	390,142	41,990
Southern Express Company	62,532	96,936	2,144	32,100	113,820	.....
United States Express Company	2,276,116	3,359,064	99,955	682,844	956,236	297,662
Wells, Fargo & Co.'s Express	218,677	874,708	9,075	51,295	76,944	13,677
Group VII	1,171,144	3,822,688	42,817	356,277	516,077	155,322
American Express Company	65,270	95,294	1,293	36,886	50,902	9,161
Pacific Express Company	319,679	582,610	8,896	134,975	188,543	60,652
Wells, Fargo & Co.'s Express	786,195	3,144,784	32,628	184,416	276,632	85,509
Group VIII	3,485,217	8,239,117	116,273	1,163,166	1,638,574	454,633
Adams Express Company	654,035	1,251,316	18,295	158,730	208,818	.....
Denver and Rio Grande Express	198,252	513,300	15,011	56,616	89,608	36,553
Pacific Express Company	1,542,683	2,838,537	41,475	627,054	863,656	195,955
Southern Express Company	104,160	233,988	3,000	43,080	64,320	.....
United States Express Company	277,990	569,588	9,105	111,588	163,020	77,939
Wells, Fargo & Co.'s Express	708,097	2,832,388	29,387	166,098	249,152	144,186
Group IX	1,291,335	3,572,779	43,303	443,644	649,024	141,855
Pacific Express Company	717,155	1,319,565	19,281	291,502	401,492	88,646
Southern Express Company	33,508	144,168	1,953	16,380	48,900	.....
United States Express Company	20,012	26,408	461	15,632	15,432	4,190
Wells, Fargo & Co.'s Express	520,660	2,082,638	21,608	122,130	183,200	49,019
Group X	1,796,893	6,969,224	73,268	439,747	661,668	647,508
Pacific Express Company	120,369	263,128	3,689	46,490	71,764	46,656
Wells, Fargo & Co.'s Express	1,676,524	6,706,096	69,579	393,257	589,904	600,852
Not divided by groups (Northern Pacific Express Company)	769,800	1,924,500	16,089	111,276	169,920	178,344

a Two express companies did not report because they were merely departments of railroad companies bearing same name.

b Returns included in report of railway company of which the express company is a department.

c Partial report, the express company being a department of the railroad whose name it bears.

STATISTICS OF TRANSPORTATION.

TABLE 6.—BUSINESS DONE BY EXPRESS COMPANIES DURING THE YEAR ENDING JUNE 30, 1890—Continued.

PART 2.—BY COMPANY TOTALS. (a)

COMPANIES AND GROUPS.	Number of freight waybills issued.	Number of packages carried on freight waybills.	Weight of packages carried on freight waybills. (Tons.)	Number of money waybills issued.	Number of packages carried on money waybills.	Number of money orders issued.
Total for United States.....	44,475,528	98,118,430	1,046,273	11,614,676	17,258,682	4,598,567
Adams Express Company.....	10,612,212	22,805,904	308,452	2,450,988	3,650,478	.....
American Express Company.....	12,905,856	19,369,432	570,593	3,226,464	4,501,819	2,123,535
Camden and Atlantic Express Company (b).....	.....	.....	500	.....	.....	.....
Cincinnati, Georgetown and Portsmouth Express Company (c).....	.....	.....	15,011	56,616	89,608	36,553
Denver and Rio Grande Express.....	198,252	513,300	.....	.....	.....	.....
Dominion Express Company.....	10,260	21,936	294	10,020	13,836	.....
Earle & Prew's Express.....	114,000	1,930,000	19,110	48,000	288,000	.....
Long Island Express Company.....	419,072	1,079,879	12,298	37,610	48,243	.....
National Express Company.....	606,757	1,171,041	28,369	128,282	207,826	.....
New England Despatch Express Company.....	25,000	75,000	1,375	3,344	9,500	.....
New York and Boston Despatch Express Company.....	224,672	1,349,160	13,957	60,977	179,410	.....
Northern Pacific Express Company.....	769,800	1,924,500	16,089	111,276	169,920	178,344
Pacific Express Company.....	3,636,661	6,691,506	97,772	1,478,203	2,035,964	457,196
Southern Express Company.....	2,236,696	6,503,576	48,484	633,228	1,049,046	.....
United States Express Company.....	7,500,694	13,856,812	297,887	2,148,368	3,183,032	805,552
Wells, Fargo & Co.'s Express.....	5,206,596	20,826,384	216,082	1,221,300	1,632,000	997,397
West Jersey Express Company (b).....	.....	.....	.....	.....	.....	.....

PART 3.—BY GROUP TOTALS. (a)

Total for United States.....	44,475,528	98,118,430	1,046,273	11,614,676	17,258,682	4,598,567
Group I.....	4,700,815	11,250,094	235,932	1,039,366	1,895,928	142,383
II.....	11,125,713	24,325,360	413,090	2,471,826	3,462,415	422,034
III.....	7,069,230	13,137,149	254,481	1,832,769	2,439,067	785,786
IV.....	1,177,715	2,855,018	39,800	278,009	419,858	8,793
V.....	2,629,090	7,307,424	71,765	790,205	1,640,598	63,032
VI.....	9,258,576	14,715,137	348,455	2,688,391	3,765,533	1,596,875
VII.....	1,171,144	3,822,688	42,817	356,277	516,077	155,322
VIII.....	3,485,217	8,239,117	116,273	1,103,166	1,638,574	454,631
IX.....	1,291,335	3,572,779	43,303	443,644	649,024	141,655
X.....	1,796,893	6,969,224	73,268	439,747	661,068	647,506
Not divided by groups (Northern Pacific Express Company).....	769,800	1,924,500	16,089	111,276	169,920	178,344

a Totals given are for 15 companies, of which 1 is only a partial report.

b Returns included in report of railway company of which the express company is a department

c Partial report, the express company being a department of the railroad whose name it bears.



1



3 9015 02091 0785

Transp.
HE
205
.A45
1890
v.2

U.S. Census Office.
Census, 1890.
Report on transportation business in the United States.

